

WHC Nomination Documentation

File name: 308.pdf UNESCO Region EUROPE AND NORTH AMERICA

SITE NAME ("TITLE") Yosemite National Park

DATE OF INSCRIPTION ("SUBJECT") 2/11/1984

STATE PARTY ("AUTHOR") UNITED STATES OF AMERICA

CRITERIA ("KEY WORDS") N (i)(ii)(iii)

DECISION OF THE WORLD HERITAGE COMMITTEE:
8th Session

In response to the Bureau's request on clarification of the status of the proposed dam constructions in proximity of this property, the Committee noted that the authorities had assured that the implementation of such proposals was highly unlikely. The Committee nevertheless requested to be informed by the American authorities of any developments in this respect which could affect the Park. It also noted with interest that the relevant authorities had the intention to implement a programme to reduce the impact of tourism.

BRIEF DESCRIPTION:

Located in the heart of California, Yosemite National Park, with its "hanging" valleys, many waterfalls, cirque lakes, polished domes, moraines and U-shaped valleys, offers a view of all kinds of granite reliefs fashioned by glaciation. At 600 to 4,000 metres high, a great variety of flora and fauna can also be found here.

1.b. State, province or region: State of California

1.d Exact location: Long. 119°53'-119°12' W / Lat. 38°11'-37°30' N



Red: 28.12.83
ID.N°: 308

1. Specific location

a) Country

United States of America

b) State, Province or Region

State of California

c) Name of Property

Yosemite National Park

d) Exact location on map and indication of geographical co-ordinates

LATITUDE

N 38°11' - Northern Limit
N 37°30' - Southern Limit

LONGITUDE

W 119°53' - Western Limit
W 119°12' - Eastern Limit

2. Juridical data

a) Owner

United States Government
Department of the Interior
Washington, D.C. 20240

b) Legal status

Yosemite National Park consists of publicly owned and managed natural and cultural resources which are afforded the highest protection under United States legislation.

The following Legislative Summary outlines the historical and administrative enabling process for Yosemite.

c) Responsible administration

National Park Service
U.S. Department of the Interior
Superintendent
P.O. Box 577
Yosemite National Park, California
95389

2.b) Legal status (continued)

Legislative Summary

Act of Congress, June 30, 1864 (13 Stat. 325) grants Yosemite Valley and Mariposa Big Tree Grove to the State of California.

Act of Congress, October 1, 1890 (26 Stat. 650) establishes Yosemite National Park as a "forest reservation," excluding Yosemite Valley and the Mariposa Big Tree Grove.

Act of Congress, February 7, 1905 (33 Stat. 702) excludes certain lands from Yosemite National Park and includes said lands in the Sierra Forest Reserve.

Act of Legislature of California, March 3, 1905 (Chapt. 60, Page 54, Statutes of California and Amendments to the Codes) regrants to the United States the Mariposa Big Tree Grove and Yosemite Valley.

Joint Resolution of Congress, June 11, 1906 (34 Stat. 831) accepts the 1905 recession by the State of California of the Yosemite Valley Grant and the Mariposa Big Tree Grove.

Act of Congress, December 19, 1913 (38 Stat. 242) grants certain lands and rights-of-way within Hetch Hetchy Valley and Lake Eleanor Basin of Yosemite National Park to the City and County of San Francisco for municipal water supply and hydroelectric power development.

Act of Congress, July 23, 1914 (38 Stat. 554) authorizes the leasing of lands within Yosemite National Park for business transactions under terms and conditions determined by the Secretary of the Interior.

Act of Legislature of California, April 15, 1919 (Chapt. 51, Page 74, Statutes of California and Amendments to the Codes) cedes to the United States exclusive jurisdiction over Yosemite National Park.

Act of Congress, June 2, 1920 (41 Statutes at Large 731) accepts cession by California of exclusive jurisdiction over lands embraced within Yosemite National Park.

Act of Congress, May 28, 1928 (45 Stat. 787) authorizes the acquisition of 547 hectares (1,350 ac) of land in exchange for 409 hectares (1,010 ac) of land within Yosemite National Park.

Act of Congress, March 2, 1929 (45 Stat. 1486) provides for the preservation and consolidation of 4,846.47 hectares (11,970.78 ac) of non-federal land to be added to Yosemite National Park by Presidential Proclamation.

Presidential Proclamation No. 1904, April 14, 1930 (46 Stat. 3017) extends the western boundary of the Park to include non-federal timber stands near the Big Oak Flat road.

2.b) Legal status (continued)

Act of Congress, February 14, 1931 (46 Stat. 1115 and 1154) provides for the withdrawal of 2,293 hectares (5,664 ac) from National Forests to be added to Yosemite National Park by Presidential Proclamation.

Presidential Proclamation No. 2005, August 13, 1932 (47 Stat. 2527) extends the southern boundary of the Park to include the Wawona area, by 3,556.66 hectares (8,784.94 ac).

Act of Congress, July 9, 1937 (50 Stat. 485) provides for the acquisition of 2,769 hectares (6,840 ac) non-federal land to be added to Yosemite National Park by Presidential Proclamation.

Presidential Proclamation No. 7898, May 26, 1938 (50 Stat. 485) extends the western boundary of the Park to include non-federal lands near the Tioga road.

3. Identification

a) Description and inventory

Yosemite possesses five of the seven recognized life-zones in the United States. "Few areas in the United States have more variety of native flora and fauna than the Sierra slopes" (Schaffer). Yosemite's wide range of elevations, from its semi-arid foothills to its snowcapped crest, has produced a zone type distribution for 37 species of native trees, hundreds of wildflowers, 67 mammals, 221 birds, 18 reptiles and 10 amphibians. The distinct vegetative zones or ecosystems are roughly arranged in elevational belts. While some species inhabit a single belt, the majority occupy two or three belts, although not always in equal numbers, and a few species utilize all elevational belts.

The location of the Park's six distinct vegetative zones or ecosystems largely depends on climatic variation. The climate of the central Sierra is Mediterranean with hot, dry summers and cool, moist winters. Mean temperatures range from 2 to 22 °C (36 to 72 °F) in Yosemite Valley to about 127 cm (50 in) at Snow Flat, elevation 2,652 meters (8,700 ft). The majority of rain and snow falls at the middle elevations between 1,220 and 2,743 meters (4,000 and 9,000 ft). The foothills and lower slopes are semiarid the higher peaks and crests are also relatively dry, the air masses having discharged most of their vapor content before reaching those heights.

b) Maps and/or plans

- 1 -- Northern Hemisphere orientation
- 2 -- State of California orientation
- 3 -- Yosemite and Vicinity orientation
- 4 -- Yosemite National Park
Scale 1:125,000

3.a) Description and inventory (continued)

A descriptive summary of the six distinct ecosystems follows:

Chaparral (Upper Sonoran, Transition, and Canadian):

The chaparral ecosystem is defined as a community with at least 50 percent shrub cover. This ecosystem has limited occurrence of about 18,811 hectares (46,480 ac) roughly between 579 to 2,591 meters (1,900 to 8,500 ft) elevation. Chaparral in the Park is divided into two distinct types that are generally separated by elevation and are composed of different floras; the higher elevation chaparral is composed of greenleaf manzanita (Arctostaphylos patula), pinemat manzanita (A. nevadensis), mountain whitethorn (Ceanothus cordulatus), huckleberry oak (Quercus vaccinifolia), and bitter cherry (Prunus emarginata). Scattered pines, firs and oaks occur in this upper elevation chaparral. The lower elevation chaparral consists primarily of Mariposa manzanita (Arctostaphylos mariposa), buckbrush (Ceanothus cuneatus), deer brush (C. integerrimus), chaparral whitethorn (C. leucodermis), and mountain mahogany (Cercocarpus betuloides). The dominant arborous species are live oaks (Quercus chrysolepis and Q. wislizenii), knobcone pine (Pinus attenuata) and digger pine (P. sabiniana).

Mixed Conifer (Upper Sonoran and Transition):

This ecosystem has a moderate distribution of about 79,600 hectares (196,690 ac), between 610 and 1,981 meters (2,000 and 6,500 ft) elevation. Its dominant arborous species are ponderosa pine (Pinus ponderosa), incense cedar (Libocedrus decurrens), and California black oak (Quercus kelloggii) at its lower end; and white fir (Abies concolor), jeffery pine (Pinus jefferyi), and sugar pine (P. lambertiana) at its upper end. One of the finest virgin sugar pine stands in the world grows within the Park.

The unique giant sequoia (Sequoiadendron giganteum) ecosystem occurs in scattered groves between 1,524 and 2,591 meters (5,000 and 8,500 ft) elevation in this vegetational zone. Fire is being reintroduced into the giant sequoia ecosystem and other fire-dependent communities to insure their perpetuation.

Yosemite Valley's 1,219 meter (4,000 ft) elevation places it in the mixed conifer zone. However, because of its towering walls that cause uneven heating, unusual conditions prevail. Extremes in environmental conditions allow some migrants to become residents and make it a meeting place for flora and fauna of adjacent zones.

Meadow (Transition, Canadian, and Hudsonian):

Covering about 11,332 hectares (28,000 ac) this ecosystem is widely scattered throughout the Park between 1,067 and 3,200 meters (3,500 and 10,500 ft) elevation. The meadow ecosystem is divided into three distinctive types: 1) "low elevation" meadows that occur below 1,829 meters (6,000 ft) elevation; 2) "alpine and subalpine" meadows that are found above 1,829 meters (6,000 ft) elevation and that become fairly dry by mid-summer; and "boggy" meadows generally occurring above 1,829 meters (6,000 ft) and characterized by a very elevated water table in late summer or early fall.

3.a) Description and inventory (continued)

Red Fir (Canadian):

This ecosystem occurs generally between 1,981 and 2,743 meters (6,500 and 9,000 ft) in elevation. It has a moderate distribution of 37,131 hectares (91,750 ac). The dominant arborous species is red fir (Abies magnifica), often occurring in pure stands but usually mixed with Jeffery pine and lodgepole pine (Pinus contorta). White fir, sugar pine, and mountain hemlock (Tsuga mertensiana) are also associated with this ecosystem.

Lodgepole Pine - Subalpine (Canadian and Hudsonian):

This zone has an extensive distribution of 137,914 hectares (340,780 ac) between 2,134 and 3,048 meters (7,000 and 10,000 ft) in elevation. Dominant arborous species are lodgepole pine (often growing in pure stands), western white pine (Pinus monticola), western juniper (Juniperus occidentalis), white-bark pine (Pinus albicaulis), and mountain hemlock. Glacial lakes and meadows are scattered throughout this zone.

Alpine (Alpine):

Located above treeline (about 3,048 meters or 10,000 ft and up), this ecosystem has a moderate distribution of 21,247 hectares (52,500 ac). The herbaceous vegetation is distinctive, sparse, and low-growing.

The Park's ecosystems reveal and depend upon dynamic natural processes. An ever changing environment caused by the presence or absence of fire, alterations in watersheds, and variations in climate create an intensely varied and interesting park where natural vegetative mosaics and faunal and floral fluctuations are actively operating. "Nowhere will you see the majestic operations of nature more clearly revealed beside the frailest, most gentle and peaceful things" (Muir).

Yosemite National Park lies on the western slope of the central Sierra Nevada--an immense mountain chain stretching one-third the length of California. The Sierra is about 800 kilometers (500 mi) long, 110 kilometers (70 mi) wide, and almost 4,420 meters (14,500 ft) high. The whole range was at one time covered with glaciers that furrowed canyons 610 to 1,829 meters (2,000 to 6,000 ft) deep. John Muir, the well-known naturalist, described the Sierra Nevada as the "range of light" where . . . "every peak, ridge, dome, canyon, lake basin, garden, forest and stream testifies to the existence and modes of action of . . . scenery-making ice." Glaciers are still working in the shadows of the peaks, and thousands of glacial lakes and meadows sparkle and bloom beneath them.

The Park's exceptional geological, biological, and scenic resources are contained within 307,943 hectares (760,917.18 acres) in Tuolumne, Mariposa, and Madera counties, California. Four National Forests surround the Park, providing a buffer. A major trans-Sierra highway, however, bisects the Park, making it the most accessible portion of the scenic central Sierra. The Park is within four to six hours driving time of San Francisco and Los Angeles, and residents of these urban areas make up a large percentage of the Park's visitors.

3.a) Description and inventory (continued)

Geologically, the area is comprised of granite material formed during three intrusions dating from 200 to 85 million years ago. Subsequent uplifting and erosion created the two major drainage basins (the Merced and Tuolumne) of the Park. Glacial action resulted in the final stripping of the metamorphic overlayer, leaving behind textbook-perfect glacial features (domes, glacial pavements, moraines, sheer rock walls, hanging valleys) for which Yosemite is renowned.

Glaciers shaped the Yosemite scene more than any other force, but the forms created were due to unusually massive, variously structured bedrock. Where sparsely jointed, the obdurate rocks withstood erosion and now stand forth in bold relief as sheer cliffs, hanging valleys (with magnificent waterfalls), or domes; where weaker and more jointed, valley walls receded and valley bottoms widened out to hold lakes or their successors, meadows.

Yosemite Valley, the "world's most renowned example of a [glacially carved] valley" (Hill), is itself a single feature of beauty and fame that dramatically displays the varied rock forms created by glaciers. The Valley is a steep-walled, U-shaped canyon that is 11 kilometers (7 mi) long and 1.6 to 3.2 kilometers (1 to 2 mi) wide. It is a widened portion of the prevailing narrow Merced River canyon, which traverses the southern half of the park from east to west.

Eight different granitic rock types occur in the Valley in a complexly intermingled pattern; because of structural differences, the rocks have cracked differently fashioning a valley with gigantic cliffs and domes, varied in form and character.

Yosemite Valley is at present the administrative center and focal point for park visitors. Four roads, one from the south, two from the west, and one from the east direct visitors to the heart of the park (both literally and figuratively). In 1980, Yosemite's General Management Plan was approved; when the plan is fully implemented the administrative and most of the park support facilities will be moved out of the Valley and into the El Portal Administrative Site and other designated areas. Only public shuttles and essential vehicles will be permitted in the Valley. The removal of facilities and vehicular traffic will return the Valley to a more pristine condition.

In no other canyon or valley is "magnitude, beauty, and accessibility so ideally combined as in Yosemite" (California Geological Survey). However, the Yosemite is not the only valley of note within the park. A dozen miles to the north and parallel to it is the Grand Canyon of the Tuolumne River, a prodigious gash which exceeds Yosemite Valley in length and depth, and which opens into Hetch Hetchy Valley, a lesser Yosemite, now holding an artificial lake impounded by a dam at its lower end. This dam is part of the San Francisco water project. Other exceptional canyon valleys in the park occur upstream from Yosemite Valley in the Merced and Tenaya Canyons.

A feature not restricted to Yosemite Valley, although many of the largest ones occur there, are the great granite domes. Domes are rare on this planet and "the Yosemite region contains a greater and more varied assemblage of [domes and related] distinctive forms than any other area of similar extent in the

3.a) Description and inventory (continued)

Sierra Nevada or, perhaps, on the earth" (Matthes). Domes, granite arches, and conoidal buttresses, distinguished by their smoothly rounded shapes and their development in unjointed, massive granite blocks, owe their form to the gradual exfoliation of granite slabs resulting from overlying load relief. In the formation or reshaping of certain domes, however, overriding glaciers also played a part in the rounding process. Of the granite domes in Yosemite Valley, Half Dome is superior, dominating the upper Valley and looking down upon its neighbors, North Dome and Basket Dome. Near Glacier Point is Sentinel Dome, and in Tuolumne Meadows is the famous Lembert Dome. Near Tenaya Lake and Tuolumne Meadows are clusters of magnificent domes varying in size and symmetry.

An equally rare and striking glacial phenomenon is glacial polish or pavement. Extensive areas of polished granite surfaces throughout much of the Park attest to relatively recent movement of glaciers across bedrock. Trapped in the glacier, fine particles of rock scraped smoothed the bedrock, leaving a shiny polished surface. The glacial pavements are so young that erosive weathering has barely marred their brilliant beauty. Glacial polish is found in the most perfect condition at elevations between 2,438 and 2,742 meters (8,000 and 9,000 ft).

However impressive Yosemite's geologic features are, the Park's waterfalls are often the natural feature most remembered by visitors. Impressed by the Park's waterfalls, geologist Francois Matthes wrote:

Outstanding among them are those waterfalls that make free, untrammelled leaps of great height. Most waterfalls elsewhere are broken in their descent by projecting ledges. Such falls are properly termed cascades; but the leaping falls of the Yosemite region are 'falls' in the truest sense. They represent a relatively rare type, for cleancut rock walls of great height are rare in the paths of streams.

As Matthes described, there are two types of falls in Yosemite--those that leap free pouring from the lips of hanging valleys, and those that cascade in stair-step fashion in a canyon. Hanging valleys form when a glacier moves down a main canyon deeply carving and eroding granite at the junction of a tributary stream. The hanging valley of Yosemite Creek stands 739 meters (2,425 ft) above the Valley floor and the water that leaps from its lip produces the spectacular Yosemite Falls (actually a series of three falls). Ribbon Fall, the third highest free-leaping fall in the world, has the greatest single unbroken drop (491 m or 1,612 ft) of any fall in the Park.

Stairstep falls or cascades originate when glaciers moved down a stream drainage plucking precipitous steps where the granite is closely jointed or easily erodible. These "glacial stairways" are responsible for numerous waterfalls. Prime examples of this waterfall type may be seen in Tenaya Canyon where a long series of inclined steps extends 11 kilometers (7 mi) up the canyon and in the upper Merced Canyon where a stairway sprawls 34 kilometers (21 mi) to the headwaters of its drainage.

The Park is divided into two main watersheds: the Merced and Tuolumne. The Merced watershed begins in the Park's southern peaks--primarily in the Clark Range. The South Fork of the Merced flows through the park community of Wawona

3.a) Description and inventory (continued)

uniting with the main stem west of the Park. The main Merced, coursing off peaks and growing from numerous tributaries, fills up lake basins such as Washburn Lake and Merced Lake before it continues down to glorify the grandeur of Yosemite Valley and the steep downstream Merced Canyon.

The Park's largest river, the Tuolumne River, drains the entire northern portion of the Park. Originating at the Mount Lyell glacier (the second largest extant glacier in the Sierra Nevada), the Tuolumne flows through the beautiful Lyell Canyon, Tuolumne Meadows, Glen Aulin, the spectacular Grand Canyon of the Tuolumne, and finally merges with the waters of the Hetch Hetchy reservoir on the Park's western boundary. Mount Lyell, the highest peak in Yosemite (3,998 m or 13,114 ft), stands at the apex of the range, draining into both the Tuolumne and Merced watersheds.

A large part (73.7 %) of the Park lies above 2,134 meters (7,000 ft), the average elevation increasing markedly as the summit crest of the Sierra is approached. Traveling on a main highway over the 3,031 meter (9,945 ft) high Tioga Pass and entering the Park at its eastern boundary, one encounters a "land of contrast", a place where isolated peaks and ridges tower far above the mean levels of the region.

Passage through Yosemite's high country by vehicle, stock, or on foot is restricted to the warm, dry summer season. Seasonal conditions control the opening of roads and trails in the high country, concentrating public wilderness use into a few months. In the summer, many visitors may travel to any of six High Sierra Camps (each of which is situated in an area of outstanding beauty and interest) or take to the park's 1,245 kilometers (773 mi) of maintained trails. In the winter, numerous hardy skiers and snowshoers traverse the snowy Sierra slopes either following marked ski routes (the Park has 161 kilometers (100 mi) of marked ski routes) or taking more adventurous cross-country routes.

Of the 3,080 square kilometers (1,189 sq mi) of land within the park boundaries, 90% is pending Congressional designation as "wilderness" (Congressional designation of an area as wilderness provides for the strictest form of natural area protection in the United States). The Park's vast "wilderness" offers more than individual scenes of remarkable beauty, it offers a different world in which the air is cleaner, the sky is bluer, the light is more dazzling, and nature is alive with challenge.

Dotted in amongst the forests and broad expanses of rock are the Park's approximately 300 lakes, each a reminder of the glaciers that gouged many basins in their slow powerful journey. These sparkling jewels are located in the upper reaches of canyons and glacial amphitheaters around the peaks, primarily in the subalpine and alpine regions.

The glacial meadows, even more numerous than the lakes, are spread over the filled-in basins of vanished lakes. These meadows "are smooth, level, silky lawns, lying embedded in the upper forests, on the floors of the valleys, and along the broad backs of the main dividing ridges, at a height of about [2,438 to 2,742 meters] 8,000 to 9,000 feet above the sea" (Muir). In the Park's high country, the most extensive and well known meadows are the Tuolumne Meadows. Tuolumne Meadows is the largest subalpine meadow complex in the Sierra; the

3.a) Description and inventory (continued)

main lower portion of these meadows is about 6.5 kilometers (4 mi) long and .4 to .8 km ($\frac{1}{4}$ to $\frac{1}{2}$ mi) wide; the average valley width, however, is 13 kilometers (8 mi). In these meadows, as in many of the high country meadows, the flowers bloom profusely and a network of streams keep the meadows moist throughout the summer.

The low elevation meadows are also delightful, especially in the spring when the ground is moist and wildflowers are at their best.

In general, Yosemite is heavily forested. The forests are distributed in wide belts in accordance with climatic variation and species requirements. Many park conifers are unusually large for their age--conditions being particularly favorable for them in some areas. The size of individual trees and the remarkable diversity of species assembled together is due to climatic variation and the topographical features that influence the peculiar distribution of soils and moisture.

The Park contains three giant sequoia (Sequoiadendron giganteum) groves: the Mariposa, Tuolumne, and Merced groves. The giant sequoia is probably the "largest living thing on earth." A relic species, the giant sequoia occurs as a native only in isolated groups on the western slope of the central and southern Sierra Nevada, growing in inter-river uplands at elevations from 1,524 to 2,590 meters (5,000 to 8,500 ft) where sunny weather predominates.

The giant sequoia ecosystem is a historic and natural resource. Beginning in the 1850's, the unique trees of the Mariposa Grove drew large numbers of visitors to the park area. Interest in giant sequoia preservation played an important role in the enactment of the original Yosemite Grant of 1864. The Mariposa Grove has remained a major park attraction for more than 100 years.

The flowers of Yosemite are profuse and varied. More than 1,200 flowering plants occur in the park along with numerous ferns, bryophytes, and lichens. The Park's plant taxa are typical of the Sierra and may be found in modified form throughout most of the range; a few species, however, are rare and occur only in special locations or restricted habitats.

Eight candidate threatened or endangered plants listed in the Federal Register of December 15, 1980 occur in the Park or on the adjacent El Portal Administrative Site. One additional candidate species (Clarkia lingulata) occurs near and possibly in the Administrative Site as well. These eight species are:

<u>Allium yosemitense</u>	<u>Eriophyllum congdonii</u>
<u>Carex tompkinsii</u>	<u>Eriophyllum nubigenum</u>
<u>Cypripedium montanum</u>	<u>Lewisia congdonii</u>
<u>Erigeron aequifolius</u>	<u>Trifolium bolanderi</u>

The annual Eriophyllum nubigenum occurs only in the Park--growing in isolated groups on granite slabs and domes in the upper mixed-conifer forest. Visitor activities near three of the sites threaten these populations.

The California Native Plant Society has listed 19 additional locally rare and

3.a) Description and inventory (continued)

sensitive plant taxa that are known or suspected to occur in the Park. Yosemite is a haven for 18 additional plant taxa that are rare in the Sierra Nevada.

Yosemite's wealth of wildlife includes two endangered birds: the bald eagle (Haliaeetus leucocephalus spp.) and the peregrine falcon (Falco peregrinus anatum). The Park contains habitat suitable for both of its resident endangered raptors.

The Park contains the only known active peregrine falcon eyries in the entire Sierra Nevada. The size of the Park, the presence of excellent nest sites on sheer rock faces, and an abundant food source has enabled peregrine falcons to successfully reproduce four out of eight years since their reappearance in the Park in 1975.

In general, the greatest threat to the bald eagle is habitat destruction. The Park protects the bald eagle habitat within the Park's boundary.

Listed as endangered by the California Department of Fish and Game (CDF&G), the great grey owl (Strix nebulosa) also nests in the park. The Park supports two predators listed as rare by the CDF&G--the wolverine (Gulo luscus) and the Sierra red fox (Vulpes fulva necator). Two species listed as rare in the Park and vicinity by the National Park Service are the fisher (Martes pennanti) and the aplodontia (Aplodontia rufa). In some mountain meadows above 1,981 meters (6,500 ft) elevation, the Yosemite toad (Bufo canorus) can be found. This toad is peculiar to the region. The Mount Lyell salamander (Hydromantes platycephalus), a rare and exclusively Sierra amphibian, is found from 1,372 to 3,292 meters (4,500 to 10,800 ft) elevation in the central and southern Sierra Nevada.

Yosemite's wildlife includes a variety of common species, many of which are found in multiple life-zones; these include the mule deer, black bear, mountain lion, and coyote. The Park has 67 mammalian species of which 32 are rodents. The Park also has 221 bird species, many of which are year round residents. Of 11 fish species found in the Park, six are endemic but only two, the rainbow trout (Salmo gairdneri) and the Sacramento sucker (Catostomus occidentalis), were abundant in presettlement times.

3. Identification (cont'd)

c) Photographic and/or cinematographic documentation

Source: Yosemite National Park Research Library
Size: 8" x 10", Black and White

- | | |
|---------------------------------|---------------------------|
| 1 - Yosemite Falls | 7 - Half Dome |
| 2 - Three Brothers | 8 - Vernal & Nevada Falls |
| 3 - Yosemite Valley/Tunnel View | 9 - Bridalveil Fall |
| 4 - Tenaya Canyon | 10 - Ribbon Fall |
| 5 - Nevada Fall | 11 - Tuolumne Meadows |
| 6 - Mariposa Grove of Big Trees | 12 - Vernal Fall |

d) History

Within the boundaries of Yosemite National Park are 569 designated archaeological sites. These sites have been recorded during the past 50 years, from observations by visitors and park staff, and during systematic archaeological surveys. To date, an estimated 5 percent of the park, mostly in areas of heavy use, has been surveyed by professional archaeologists (Napton 1978). It is estimated that the total number of sites located within the park exceeds 1500.

Culturally, Yosemite stands between the major ethnographic areas of central California and the Great Basin area of Nevada and Utah (Kroeber 1939). In late prehistoric and historic times, Yosemite was occupied mainly by the Central and Southern Sierra Miwok, but Great Basin Indians such as the Paiute also occupied parts of Yosemite (at least seasonally). The Paiute intermarried with the Miwok, conducted active trade with west slope peoples, and otherwise brought considerable Great Basin influence into the central Sierra. Hence, Yosemite may be viewed as a boundary zone and contact area between two major geomorphic and cultural provinces.

e) Bibliography

Please refer to the appendix.

3.d) History (continued)

The Miwok tribe influenced both sides of the Sierra. The mainstay of Miwok subsistence was the production and use of the acorn. The acorn from five area species of oak were harvested in the fall and stored. Acorn flour was produced with the use of the bedrock mortar and accompanying stone pestle. Other vegetable foods utilized by the Miwok included manzanita berries, mushrooms, bulbs, and seeds. Hunting of deer, squirrel, bear, birds, and other game supplemented the consumption of acorns and other vegetal material.

Extensive trade was established between the Miwok and coastal tribes for shell; and, most important, with Great Basin groups for obsidian, pinenuts and salt. The volcanic glass was prized by the Miwok and other groups for its excellent properties when used in manufacturing arrow and spear points, knives, scrapers, and other tools. Large quantities of acorn, obsidian, salt, and other items were included in the trade network.

The Miwok Indians of the Yosemite region lived in villages of various sizes. Houses were constructed of cedar and pine bark, with some dwellings being located in rock shelters. Social and religious ceremonies were conducted in sweat lodges and large roundhouses. Some sites within Yosemite contain pictographs painted on the cliffs and large outcrops of bedrock. Although the exact origin and meanings of the pictographs are not known, they are an additional indication of the complexity of the cultural system.

Although less is known about the prehistoric period in Yosemite, information that has been gained from several archaeological excavations indicates that indigenous populations have occupied the area for at least 2000 years, and perhaps longer. The prehistoric element of Yosemite's cultural sequence has been tentatively defined in three major cultural phases of complexes: the Mariposa Complex (A.D. 1200-1800), the Tamarack Complex (A.D. 500-1200), and the Crane Flat Complex (B.C.-A.D. 500).

The major distinction between the complexes is that the Crane Flat period is marked by heavy (greater than 3.5 grams) projectile points, inferred use of the atlatl (spear thrower) and dart, and the hand-held mano/metate system for milling seeds. The Mariposa Complex is distinguished by light (less than 1 gram) projectile points, inferred use of the bow and arrow, and the bedrock mortar and cobble pestle used for the production of acorn flour.

Representing the protohistoric period, the Mariposa Complex can be identified with the ancestral Sierra Miwok. Bennyhoff's (1956:53-54) suggested dates of about A.D. 1200-1800 are derived mainly from resemblances between Mariposa Complex projectile point types and those from dated components in the central valley of California and the Great Basin. The Tamarack Complex (A.D. 500-1200) is tentatively defined and not linked clearly to the predecessors of any historic group. The Crane Flat Complex (B.C.-A.D. 500) shares manos, slab metates, and several types of large points with the Martis Complex near Lake Tahoe. In sum, it is indicated that: (1) Yosemite has been occupied for 2000 years or more; (2) significant cultural changes (and perhaps population replacement as well) occurred during this interval; and (3) that the prehistoric cultures of the Yosemite locality were influenced by and were related to those of the Great Basin, central valley, and other parts of the Sierra Nevada.

3.d) History (continued)

Following the first visits to Yosemite by Anglo-Europeans during the early 19th century, the area was traveled and occupied by many historic period groups. Activities including hunting, mining, lumbering, sheep grazing, railroad construction, and occupation of the area by the U. S. Cavalry added to the cultural resources and history of the Park. Within the Park today there exist many historic period archaeological sites and features such as roads, cabins, encampments, railroad structures, and early period National Park Service developments. Just as the prehistoric and historic period Native American archaeological sites form the intricate web of history, so, too, does the Anglo period resources contribute to the overall cultural heritage of Yosemite National Park.

The site records for the 569 recorded archaeological sites within the Park document eight types of cultural features which occur alone or together: middens, lithic scatters (some of which may relate to subsurface deposits), rockshelters, bedrock mortars, pictographs, stone "ceremonial circles," and isolated artifacts. To these one may add the small stone walls, caches of artifacts, graves, cremations, cemeteries, and isolated house remains reported in other sources.

The greater than 4500 bedrock mortars distributed on nearly 700 outcrops at 275 sites comprise the most common type of archaeological feature, followed by lithic scatters (334), middens (151), rockshelters (41), pictograph panels (7), and stone circles (2).

Valley sites located within the lower Transition vegetation zone tend to be larger and more complex (i.e., include a greater variety of features) than high elevation sites. Lithic scatters occur in all elevation bands to an altitude of 3,300 meters (10,830 ft) or more, but they are proportionally more abundant in the high country. Lithic scatters were recorded at only 21 percent of the sites in the 900 to 1,200 meters (2,950 to 3,940 ft) band, but at 72 percent of the known sites between 2,400 and 2,750 meters (7,870 and 9,020 ft); for elevations above 2,750 meters (9,020 ft) their frequency is 93 percent.

Although bedrock mortars have been found as high as 3,230 meters (10,590 ft), most occur at low elevations. Both the number of sites with bedrock mortars and the number of mortars per sites correlate inversely with altitude. Seventy-five percent of all recorded sites with bedrock mills are below 1,500 meters (4,920 ft), and only 4 percent occur above 2,400 meters (7,870 ft). Significantly, more than 90 percent of the approximately 4,500 recorded mortars are found below 1,500 meters (4,920 ft)--a distribution largely coincident with that of the black oak.

As a scientific resource, the archaeological remains in Yosemite are of special value. Yosemite is large enough, and its cultural resources are sufficiently numerous and diverse, to provide a good sample of data for research relating to the interaction of past cultures to the environment and between individual groups of people. As a component of the area's vast cultural heritage, Yosemite's inventory of archaeological sites constitutes a unique element of archaeological and historical data that is preserved in a nearly unaltered state.

4. State of preservation/
conservation

a) Diagnosis

To the visitor, the unique resources that comprise Yosemite seem as much the same as they were 120 years ago. However, a policy of fire suppression, increases in visitor use, past insect and disease control programs, human-induced alterations of watershed patterns, construction of facilities, and varied management practices in and adjacent to the Park have brought about gradual and yet substantial change to the total park environment. In certain areas, especially Yosemite Valley, giant sequoia groves, mixed

b) Agent responsible
for preservation/
conservation

Superintendent
P.O. Box 577
Yosemite National Park
California 95389

c) History of
preservation/
conservation

For 119 years, Yosemite's destiny has been influenced by the conservation movement. Beginning with such notable advocates as Frederick Law Olmsted, John Muir, President Theodore Roosevelt, Senator John Conness, Galen Clark, James Mason Hutchings, Robert Underwood Johnson, and Joseph Le Conte the list becomes expansive.

By an Act of Congress, June 30, 1864, (13 Stat. 325) Yosemite Valley and the Mariposa Big Tree Grove were granted to the State of California to be held as places for public use

d) Means for
preservation/
conservation

Yosemite National Park is legally established as a conservation unit per Act of Congress. Its natural resources are thus assured of perpetual protection and preservation by Federal Statute.

The Act establishing the National Park Service, dated August 25, 1916; the Act establishing Yosemite National Park, dated October 1, 1890; and the Act of the California State Legislature, dated March 3, 1905 regranting Yosemite Valley and the Mariposa Big Tree Grove back to the Federal

e) Management plans

General Management Plan - September 1980:

Responsibilities and obligations regarding resources management, visitor use, and park operations/development are defined and established as the management objectives for the General Management Plan.

The General Management Plan is composed of three separate plans:

4.a) Diagnosis (continued)

conifer forests, and many meadows, the ecological balance has been somewhat altered. Notwithstanding unnatural alterations, evidence indicates that affected ecosystems can be largely restored and maintained with continued implementation of sound management.

In 1890, an era of protection began when the area was first set aside as Yosemite National Park. The "protection era" lasted until 1968 when the National Park Service made policy changes largely due to the recommendations of the Leopold Committee (1963). A management philosophy of perpetuating natural processes rather than preserving and protecting objects evolved and operates today.

Management suppressed all natural fires during the protection era causing significant changes to occur in Park forests. Early European travelers and photographers in the mid-1800s recorded the forests of the Yosemite region as being parklike with little undergrowth and with wide expanses of meadow. Overprotection from naturally occurring fires since the establishment of the Park has led to: a denser canopy; dense, stagnant thickets in the understory trees; large accumulations of fuels on the forest floor; and species shift toward shade-tolerant trees with declines in shrubs and herbs. Natural fires are now permitted to burn unimpeded, unless they threaten life or property, in the 80 percent of the Park where conditions have altered relatively little since the protection era began. Prescribed fire premiered as a park management tool in 1970 and continues to be used as the most natural method of manipulating vegetation to recreate and perpetuate what are thought to be pristine conditions.

Heavy stock and sheep grazing in the past has caused species change and ecological shifts in many park meadows. The use of stock in Yosemite precedes its genesis as a National Park. Explorers introduced stock into Yosemite in the mid-1800s, the cavalry regularly patrolled the area on horseback around the turn of the century, and both the National Park Service and the concessioner have consistently made use of stock in their operations.

In an effort to reduce stock-caused impacts, grazing regulations have been in effect for several years. Virtually all stock pasturage not incidental to a recreational or management trip ceased in 1977. Localized, probably insignificant, vegetation modification is expected to continue.

Many of the exotic plants that have become established in the Park since the 18th century are a result of grazing. Exotics have flourished most readily near developments where humans have created disturbances. Exotic plant eradication programs using biological control and manual removal are currently operating in the Park. Species composition in the low elevation meadows has been highly modified by grazing and exotic plant introduction. It is unlikely that these meadows will ever return to their natural condition.

The wildlife population has also been altered since the Yosemite area was first settled by Europeans. For example, the California bighorn sheep (Ovis canadensis californiana), the grizzly bear, (Ursus arctos horribilis) and the grey wolf (Canis lupus) inhabited Yosemite in the 1800s. Now, all (with the possible exception of the California bighorn sheep) are gone from the Park; the California bighorn may be reintroduced within this century but the California races

4.a) Diagnosis (continued)

of the grizzly bear and grey wolf are extinct. A few non-native wildlife species such as the beaver (Castor canadensis) and the white-tailed ptarmigan (Lagopus leucurus) have been indirectly introduced from activities on adjacent lands.

The California black bear (Ursus americanus) population, though higher than when this Park was established, has been severely impacted by the presence of humans during the past 80 years. Population characteristics and individual bear behavior has been altered by human contact and human supplied food sources. Unnatural alterations of the black bear population are being corrected through management programs.

The Park contains habitat suitable for its two resident endangered raptors--the southern bald eagle (Haliaeetus leucocephalus spp.) and the American peregrine falcon (Falco peregrinus anatum).

The greatest threat to the peregrine falcon is the insidious presence of pesticides in the bodies of their prey from sources outside the Park. Habitat needs are met in the park by the park's great size, the availability of superb rock faces, and an abundant food source. Reproductive success has occurred four out of five breeding attempts since the bird's reappearance in the Park in 1975. Organo-chlorine pesticide accumulation due to the consumption of polluted prey has caused eggshell thinning and reproductive failure for many breeding pairs outside the Park and is affecting one of the breeding pairs within the Park.

In general, the greatest threat to the bald eagle is habitat destruction. The Park protects the bald eagle habitat within the exterior boundary of the park.

Modification of Park ecosystems has resulted from facilities development (roads, dams, hotels, houses, offices, solid waste collection stations, water and power systems, etc.). Developments have altered and continue to alter animal populations, stream flows and ground water levels, compact soils, and cause introduction and establishment of exotic species and removal of native species. Natural resources management programs, research, and ecologically sensitive construction and maintenance all help to mitigate impacts caused by the presence of human support facilities. Some major Park developments such as the Hetch Hetchy and Lake Eleanor dams have irreversibly altered portions of Yosemite's natural ecosystems.

Today, Yosemite enjoys full protection of its resources within the realm of exclusive jurisdiction. As a result of visionary Californians, beginning in 1864, efforts to protect Yosemite Valley and the Mariposa Grove of Big Trees culminated in the Park's establishment October 1, 1890.

Historically, Management evolved from the first United States Army's cavalry detachments serving a patrol/custodial function at Camp A. E. Wood in Wawona during 1873. Administrative headquarters was later moved to Fort Yosemite in Yosemite Valley, 1906.

Effective 1914, civilian supervision became necessary until the National Park Service Organic Act of August 25, 1916 was passed by Congress. Thereafter,

4.a) Diagnosis (continued)

Congressional and State of California legislation extended National Park Service responsibility to the current levels.

Presently, sufficient staff and funds are administratively available to manage, maintain, interpret and protect park features and developments.

4.c) History of preservation/conservation (continued)

and recreation. On October 1, 1890, (26 Stat. 650) the United States Congress established Yosemite National Park as a "Forest Reservation" to preserve and protect from injury all timber, mineral deposits, natural curiosities or wonders within the park area, and to retain them in their natural condition. The 1890 Act specifically excluded Yosemite Valley and the Mariposa Big Tree Grove from Yosemite National Park, leaving them under the jurisdiction of the State of California as provided for by the Act of 1864. March 3, 1905, the California Legislature regranted to the United States both Yosemite Valley and the Mariposa Big Tree Grove "to be held for all time . . . for public use, resort, and recreation." A Joint Resolution of Congress, June 11, 1906, (34 Stat. 831) accepted both sites.

The Sierra Club, founded in 1892 with John Muir as its president, began a campaign of exploration and conservation action by state and national legislators to preserve the integrity of the wilderness between Yosemite and the Mt. Whitney regions.

Public interest soon developed for a plan to control use and conservation of our natural resources. Guidelines governing activities by stockmen, miners, and lumbermen effectively insure such utilization will not be subject to abuse.

The Raker Act, passed by Congress December 19, 1913, (38 Stat. 242) granted certain lands and accesses within Yosemite to the City and County of San Francisco for the purpose of creating a municipal water supply and power and electric plants in the Hetch Hetchy Valley and Lake Eleanor Basin. The Act specified restrictions in use and activities within one mile leading to and including the reservoirs.

An Act of Congress, June 2, 1920, (41 Statutes at Large 731) accepted cession by California of exclusive legislative jurisdiction over lands embraced within Yosemite National Park. The Federal Government currently has the responsibility of preserving and protecting the cultural and natural resources within the exterior boundaries of Yosemite National Park.

Private park "inholdings" total up to 381 tracts comprising 727.75 hectares (1,798.25 ac). These private lands are in three separate locations near the Park's western boundary. The Federal Government is authorized to acquire privately owned land within the exterior boundaries of the park. The inholdings are under State, County, and Federal jurisdiction depending on the nature of a particular legal situation.

Since 1920, the Federal Government has had exclusive legislative jurisdiction over Yosemite National Park; however, the State of California has reserved the right to serve civil or criminal process, to tax persons and corporations, and to fix and collect fees for fishing within the Park. Four concessioners are authorized to provide visitor support services within the Park.

4.d) Means for preservation/conservation (continued)

Government; and numerous other laws and proclamations indicate the importance that both past and present leaders have given to the protection of outstanding natural features of the United States, and more specifically, the Yosemite National Park.

In association with these laws and proclamations, and with Congressional approval, the National Park Service, U.S. Department of the Interior, has established policies that further direct the management of the 333 areas of the National Park System, of which Yosemite National Park is one. The last revision of these policies occurred in 1978. The document is not a static one and additional amendments will be made when determined necessary.

Additionally, in accordance with the National Environmental Policy Act of 1969, the public is afforded the opportunity to provide input into major park management programs. Respective plans and related reports consequently reflect sound public proposals. These plans are updated as necessary and are basic documents used to manage the park. Yosemite's comprehensive General Management Plan, designed to assure the preservation and protection of the resources, was completed September, 1980.

Yosemite National Park receives a budget allotment of approximately \$14,500,000 annually.

4.e) Management plans (continued)

1. Natural Resources Management Plan - May 1977 (updated July 1982):

Specifies natural resources management objectives and identifies current resource impacts and management program needs. An environmental assessment of alternative actions is included.

2. Cultural Resources Management Plan - August 1979:

Identifies known cultural resources within the park and specifies guidelines for the documentation, preservation and protection of cultural resources (historic and prehistoric).

3. Visitor Use, Park Operations, and Development Plan - October 1980:

Identifies parkwide policies and programs for visitor use and park operations, and actions necessary to reduce environmental impact and human-induced intrusion on the park's limited and unique resources. It also contains the Park's recommendations to Congress for additions to wilderness.

Supplemental Management Documents

1. Transportation Planning Study - June 1982:

Investigates alternative transportation strategies which support and implement the adopted General Management Plan for Yosemite National Park. The overriding goal is reduction of private motor vehicle impacts within Yosemite Valley.

2. Final Environmental Statement on the Wilderness Designation - April 1973:

Inventories environmental impacts, adverse impacts and describes the alternatives to the wilderness designation.

3. Wilderness Recommendation - August 1980:

Proposes wilderness designation for 90 percent of Yosemite National Park and details the necessary stringent management requirements. Final legislative action is pending, to designate certain public lands in the State of California as wilderness.

4. Statement for Interpretation - Yosemite National Park, 1983:

A working document which outlines the current and projected interpretive program thrust.

5. The present land acquisition plan is being replaced with a land protection plan to identify alternatives for protecting Park values affected by inholdings.

5. Justification for
inclusion on the
World Heritage List

b) Natural property

Yosemite National Park meets at least two of the four criteria requirements to qualify for the World Heritage List of universally significant natural areas.

- i. An outstanding example representing the major stages of the earth's evolutionary history.

The extant Sierra Nevada and its Yosemite National Park is quite young on the geologic time scale. The geology of the range provides an excellent example of the most recent stages in the earth's history--the Quaternary Period (namely the Pleistocene and recent epochs).

"The most striking event in the Pleistocene history of North America is certainly the development of thick continental glaciers which covered much of the northern part of the continent" (Oakeshott). These glaciers advanced and retreated four times. Though not definitely correlated with the movement of the continental interior glaciers, the disjunct "alpine" or "mountain-valley" glaciers of California also advanced and retreated several times during the same epoch.

Starting two to three million years ago, during the Ice Age, the entire Sierra Nevada range was mantled with snow. At the maximum extent of glaciation, the Sierra was locked in ice along 430 kilometers (270 mi) of its crest (Oakeshott). (At least twice, ice flows extended down streamcut canyons some 80-96 kilometers (50-60 mi) to elevations as low as 610 meter (2,000 ft) and grew to depths as great as 1,830 meter (6,000 ft). Each new glacial epoch partially obscured the older by erosion and deposition of later till over earlier till. Geologists are studying these layers in an attempt to understand glacial succession in California.

5.b) Natural property (continued)

The latest Ice Age resulted in the final stripping of most of the metamorphic overlayers and the creation of outstanding glacial features carved or pressed into the giant granite block that is the Sierra Nevada. During this evolutionary stage, "there was no upbuilding, but a universal razing and dismantling, and of this every mountain and valley is the record and monument" (Muir).

Most of the current evidence of glaciation in Yosemite Valley is from the last glacier which occupied the Valley toward the close of the Ice Age. A number of moraines in the lower end of the Valley mark the recessional stages of this glacial invasion. At the close of the Ice Age, water from the melting glacier was impounded by a morainal dam and as a result the Valley basin was flooded and formed a huge glacial lake. The lake filled with 610 meters (2,000 ft) of sediment providing the level valley floor that now supports meadow and forest vegetation. "With the exception of the forming of Lake Yosemite and its rapid disappearance, little change [on a geological time scale] has taken place in the appearance of Yosemite Valley since the close of the Ice Age, nearly 20,000 years ago" (Adams).

At the higher elevations, one or two glacial advances occurred after those that molded the Yosemite and Hetch Hetchy Valleys. When the glaciers melted, the High Sierra was left dotted with lakes, graced by domes, sprinkled with erratic boulders, burnished with glacial polish, and laced with young mountain streams. Some of the lakes have been filled in with sediment, and are now meadows (Tuolumne Meadows is an outstanding example) or forested flats.

Most of the dramatically sharp and beautiful scenery of the High Sierra is the result of glacial erosion. The landscape has been stripped of its older parent material and is newborn, baring the obvious scars of relentless change and evolution. Remnants of past geologic stages remain in a few localities, such as the tops of some of the high peaks and in the bodies of three small extant glaciers hiding in cold, dark recesses of mountains McClure and Lyell.

Naturalist-conservationist John Muir was one of the first to recognize the extent and significance of the role of glaciation in the formation of Yosemite's landscape: "here...lies the broad shining, heavily sculptured region of primeval granite, which best tells the story of the glacial period on the Pacific side of the continent. No other mountain chain on the globe...is so rich as the Sierra in bold striking, well-preserved glacial monuments, easily understood by anybody capable of patient observation. Every feature is more or less glacial, and this park portion of the range is the brightest and clearest of all."

- iii. Contains unique, rare or superlative natural phenomena, formations or features or areas of exceptional natural beauty:

Yosemite Valley and the Mariposa Grove of giant sequoias have the honorable distinction of being the first scenic natural areas to have been set aside by a national government for public benefit and enjoyment.

5.b) Natural property (continued)

The region's beauty incited a profound human response that compelled John Muir and others to form the Sierra Club (one of the first private conservation organizations) and prepared the world for the idea of and desire for a "national park"; and subsequent acquisition of surrounding peaks and forests to create Yosemite National Park. Frederick Law Olmsted, considered to be America's premier landscape architect, aided the visionary quest for a "public park" through his preliminary report (1865) on the Yosemite Valley and the Mariposa Big Tree Grove. The report was a commendable attempt to encapsulate the character and value of the Yosemite region: "The union of deepest sublimity with the deepest beauty of nature, not in one feature or another, not in one part or scene or another, not in any landscape that can be framed by itself, but all around and wherever the visitor goes, constitutes the Yosemite, the greatest glory of nature."

The concentration of many fantastically beautiful and incredibly inspiring cliffs, domes, and waterfalls in the Yosemite Valley explain its preeminent position in the world of natural beauty. "...having once entered the valley one is no longer left in doubt as to the reason for its fame. For no other valley is so remarkably fashioned, and no other valley holds within so small a compass so astounding a wealth of distinctive features" (Matthes). The Merced River, the meadows and forests that form its bottomlands, and the spectacular cliffs and waterfalls create one of the grandest natural settings that exist anywhere in the world. As Muir would say, "No temple made with hands can compare with Yosemite."

The most awe-inspiring of all the great rocks in the Park is El Capitan--2,308 meters (7,569 ft) in elevation; it is "the largest exposed monolith of granite in the world, Half Dome being second and Mount Watkins third" (Adams). The most photographed and famous of the Valley rocks is Half Dome, standing in massive isolation 1,491 meters (4,892 ft) above the Valley floor. This unusual mountain form is a landmark feature recognized around the world.

"No where in the world are there waterfalls of such variety within a single area as those that leap into Yosemite Valley in the spring and early summer" (Schaffer). Each has its own particular beauty that unites in a valley river. Yosemite's magnificent waterfalls are not limited to Yosemite Valley; further up the tributary canyons and in many places along the Grand Canyon of the Tuolumne are large and splendid waterfalls--each having diverse "personalities" which evoke a different mood in the observer. Because of the small volume of water in the mountain streams that form them, "the waterfalls of the Yosemite region are relatively slender, resembling shimmering veils of ribbons fluttering from the cliffs" (Matthes). Fortunately, the watersheds that feed these falls are under the Park's exclusive protection.

Among Yosemite's waterfalls are some the highest and most spectacular of the free-leaping type which is relatively rare in nature. Yosemite has five of the ten highest known waterfalls:

Angel Fall	3,212' [979m]	free falling	Venezuela
Yosemite Falls	2,425' [739m]	series of falls	Yosemite NP

5.b) Natural property (continued)

Sentinel Falls	2,000'	[610m]	series of falls	Yosemite NP
Snow Creek Falls	2,000'	[610m]	series of falls	Yosemite NP
Kukenaam Fall	2,000'	[610m]	free falling	Venezuela
Sutherland Falls	1,904'	[580m]	series of falls	New Zealand
Tugela Falls	1,800'	[549m]*	series of falls	Natal
Ribbon Fall	1,612'	[491m]	free falling	Yosemite NP
King George Falls	1,600'	[488m]	series of falls	British Guiana
Wapama Falls	1,500'	[457m]	series of falls	Yosemite NP

(Menning 1970)

Rare and beautiful natural formations that are amply represented in Yosemite are the glacial pavements and numerous, varied domes and related forms. "These domes are now known to be the outstanding representatives of a whole class of forms, all distinguished by their smoothly rounded shapes and development in unjointed, massive rocks" (Matthes). Born of glaciers and their own massive internal composition, the domes and related forms offer striking contrast to the faceted types of sculpture developed in Yosemite's jointed rock formations. This contrast is most vividly portrayed amongst Yosemite Valley's granite pillars, where cliffs, peaks, and domes rise steeply 914 to 1,524 meters (3,000 to 5,000 ft) from the Valley floor.

The glacial pavements, testifying to the youth of the region, create a shiny austere landscape. The barren polished pavements are strewn with erratic boulders and/or dotted with lakes and domes, and the whole is laced by streams cascading down bedrock slopes. But the barrenness left in the wake of glaciers, softens where soils have developed in basins or shallow slopes, allowing luxuriant meadows and forests to develop.

The Park sustains three giant sequoia groves; the Mariposa Grove being world famous. The giant sequoia is probably the "largest living thing on earth". "The world's fifth largest tree" (Jones) is the Grove's Grizzly Giant; the Grizzly Giant is the largest (209 ft. tall and a basal diameter of 34.7 ft.) and "probably the oldest (2,700 years) giant sequoia" (Schaffer) in the Park. There are 500 mature giant sequoia in the Mariposa Grove; over 200 of these exceed three meters (10 ft) in diameter. The Park's two other sequoia groves offer the visitor a more pristine experience since these groves are less accessible and infrequently disturbed by human activities. The Park's giant sequoias are relics of some forty sequoia species that flourished in the northern hemisphere about 60 million years ago.

To apprehend and adequately represent the magnificence and beauty that is Yosemite is like trying to describe a rainbow to a person who has never experienced one. Some have attempted, such as photographer Ansel Adams and poet-naturalist John Muir. Perhaps the "father" of American landscape architecture, Frederick Law Olmsted, will enlighten those struggling to understand its significance and beauty:

No photograph or series of photographs, no painting ever prepare a visitor so that he is not taken by surprise, for could the scenes be

*Tugela Falls is listed as being in South Africa and of having a height of 948 meters (3,110 ft) in the "National Geographic Atlas of the World"; Fourth Ed.; National Geographic Society, Washington, D.C. 1975.

5.b) Natural property (continued)

faithfully represented the visitor is affected not only by that upon which his eye is at any moment fixed, but by all that with which on every side it is associated, and of which it is seen only as an inherent part.

"The Yosemite Valley and the Mariposa
Big Tree Grove: A Preliminary Report,
1865"

Signed (on behalf of State Party)


Full Name

~~Active~~ Assistant Secretary for Fish and
Wildlife and Parks

Title

DEC - 9 1983

Date

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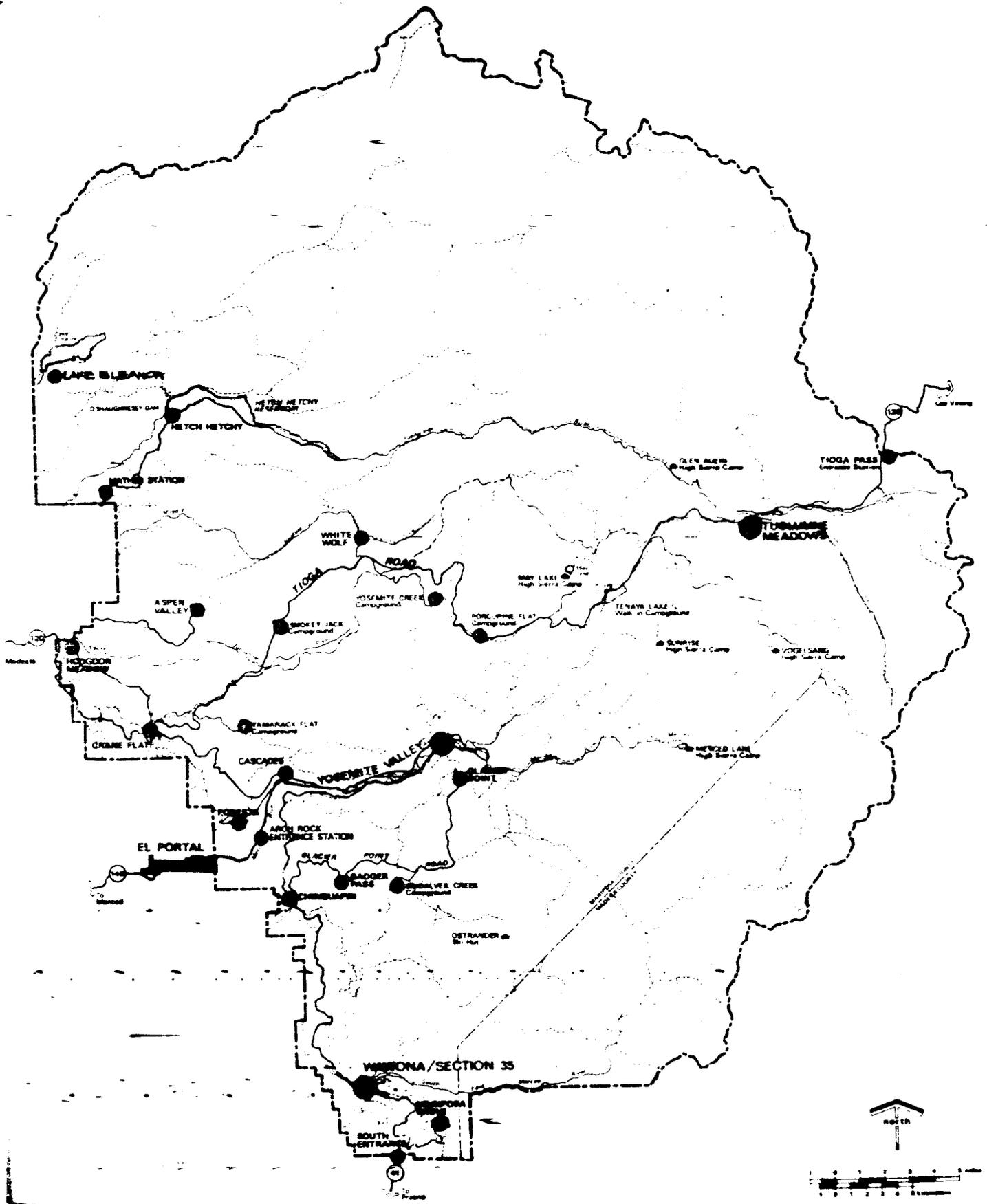
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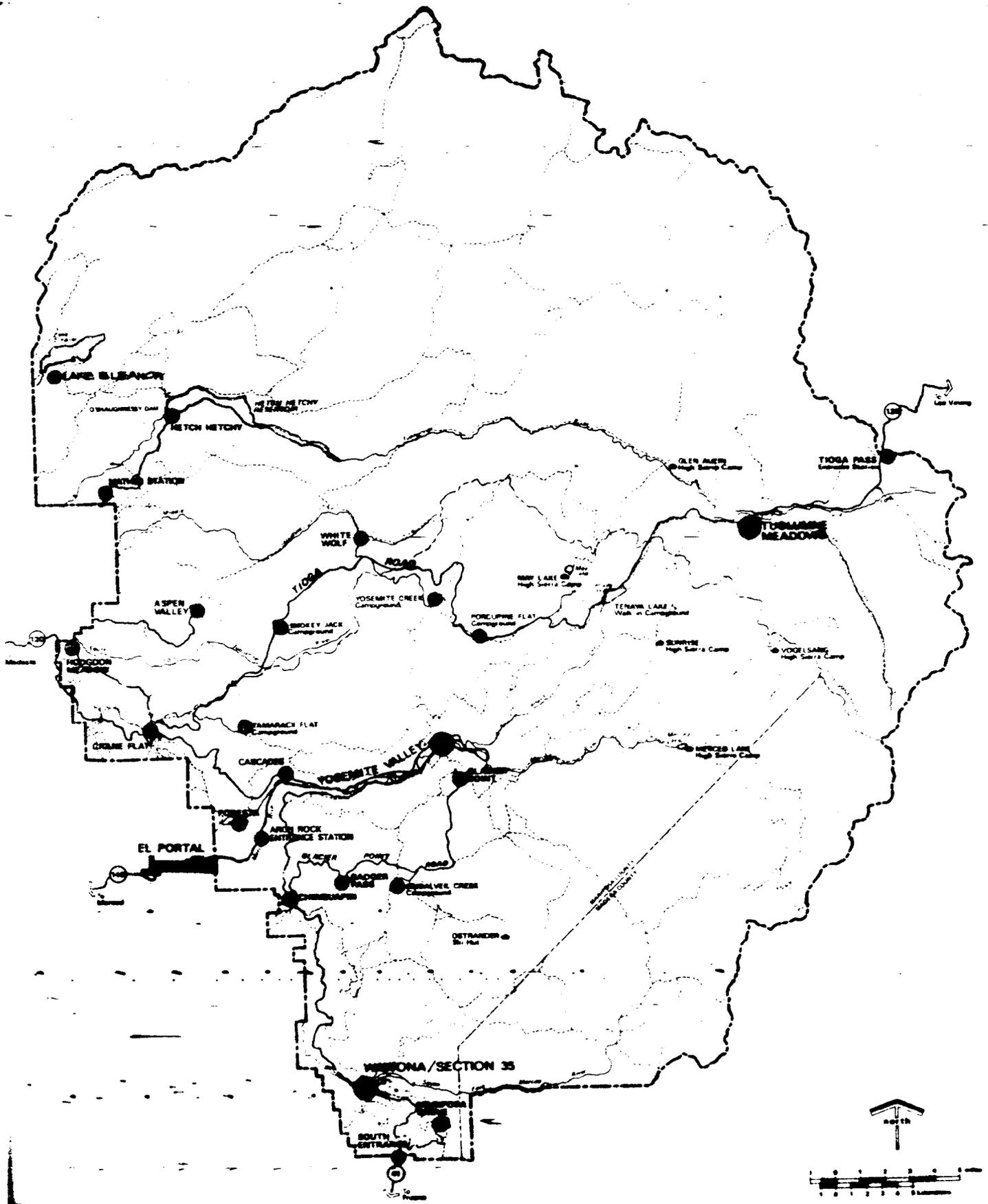
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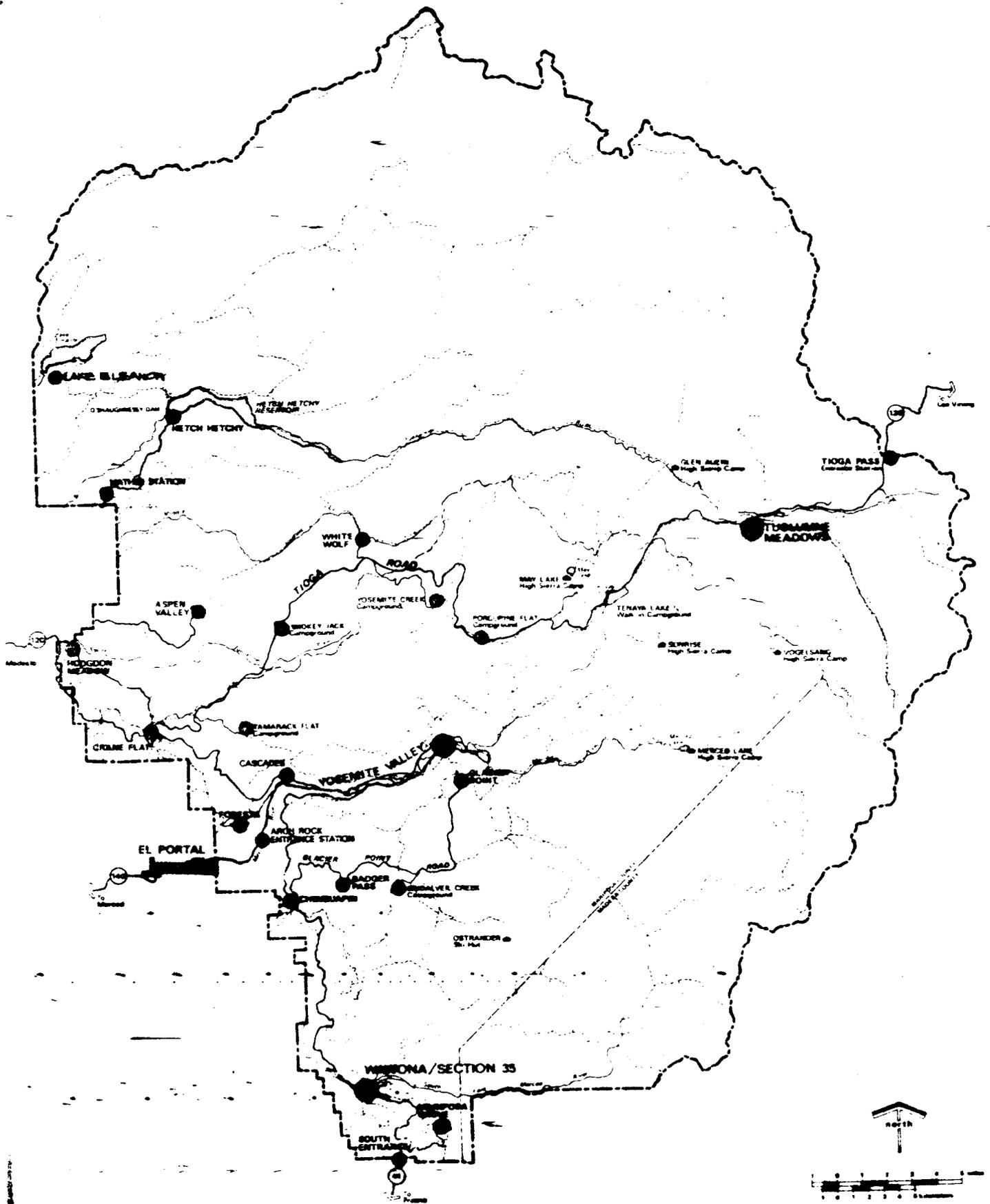
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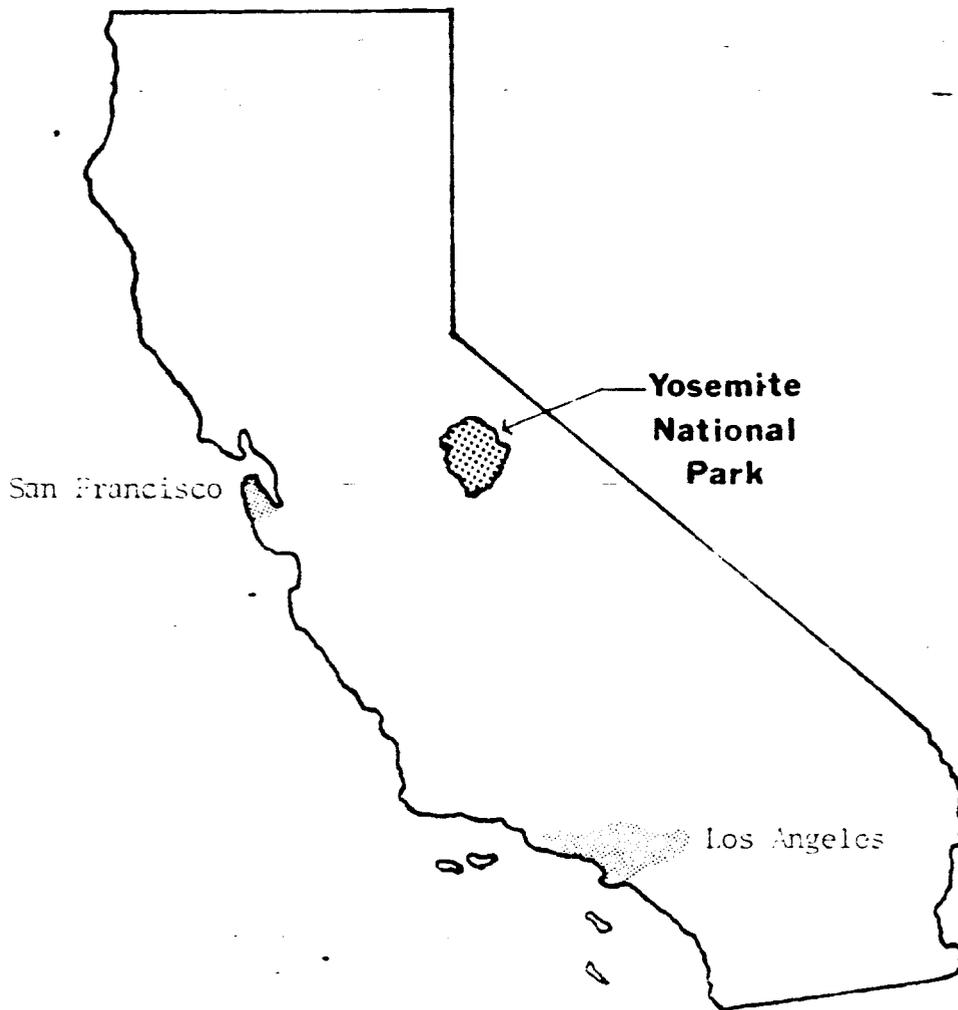
Yosemite and Vicinity



Yosemite and Vicinity



Yosemite and Vicinity



State of California





U N E S C O

Convention concerning the Protection of the World Cultural and Natural Heritage

NOMINATION TO THE WORLD HERITAGE LIST

Name: YOSEMITE NATIONAL PARK

Identification No: 308

Date received by W.I. Secretariat: 30.12.83

Contracting State Party having submitted the nomination of the property in accordance with the Convention: USA

Summary prepared by IUCN (March 1984) based on the original nomination submitted by USA. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

1. LOCATION: State of California, USA.

2. JURIDICAL DATA:

Publicly owned land administered by the USNPS under the Department of the Interior. The legislative summary includes 16 Acts, Proclamations and Resolutions made on the Park. Yosemite Valley and the Mariposa Grove of giant sequoias have the distinction of being the first scenic natural area to have been set aside for public benefit and enjoyment (1864). Formal national park status was given in 1890.

3. IDENTIFICATION:

Yosemite National Park lies on the west slope of the central Sierra Nevada Mountains in the Sierra Cascade Biogeographical Province of North America. Total size is 3079 sq km. The area was previously heavily glaciated and although no glaciers are still existent in the park the marks of their passing are everywhere. Glacial action combined with the granitic bedrock has resulted in unique and pronounced landform features. These include distinctive polished dome structures as well as the related glacial features of hanging valleys, tarns, moraines, and U-shaped valleys. Monolithic granitic blocks such as Half Dome and the perpendicular wall of El Capitan are classic distinctive reflections of the geological history of the area. Elevations vary from 579 m to 3998 m. The park is known for its many waterfalls including the Yosemite Falls and Ribbon Falls, the third highest free-leaping fall in the world (491 m). There are two major rivers which begin in the park and 300 lakes.

There is considerable climatic variation with mean temperatures varying some 20° between valleys and mountains. Precipitation also varies from 1270-2653 mm. In Yosemite are found 5 of the 7 recognized life zones of the US. The variety of flora is reflected in the existence of 6 distinct vegetation zones which are governed by altitudinal variation. Notable are 3 groves of the giant sequoia tree and extensive alpine meadows. There are 1200 species of flowering plants along with various other ferns, bryophytes, and lichens. There is one endemic, 8 threatened or endangered species of plants (US Federal Register).

The park has 67 mammalian species of which 32 are rodents. There are 221 bird species, 18 reptiles, 10 amphibians, and 11 fish species of which 6 are endemic. One bird species (bald eagle) is endangered and one bird species (peregrine falcon) is listed as vulnerable in the IUCN/ICBP Red Data Book.

In late prehistoric and historic times Yosemite was occupied by two main tribes of north American indians. There are 569 designated archeological sites within the park.

Four national forests surround the park and provide a buffer zone. A major highway bissects the park and allows easy access for visitation from major urban centres. The park received 2.7 million visitors in 1981. Intensive facility developments for tourism are located in the central Yosemite Valley portion of the park.

4. STATE OF PRESERVATION/CONSERVATION:

Much change has however occurred in the Yosemite landscape. Three species of animals are no longer found in the park (grey wolf, grizzly bear, and California Bighorn sheep). A few non-native species have been accidentally introduced (beaver, white-tailed ptarmigan). Suppression of natural fires and heavy stock and sheep grazing in the past has also altered the original vegetation. Construction of two dams in the park and development of facilities have also acted to modify the park ecosystems. Within park boundaries exist 727 ha of private inholdings.

Although portions of the park receive recreational use at peak periods that approach urban densities, 90% of the park is classified as wilderness zone where no development is permitted and access is provided by 1245 km of walking trails.

Yosemite has a comprehensive management plan completed in 1980 that addresses the above problems. The plan aims to significantly reduce visitor vehicle impacts by providing alternate transportation modes. Altered landscapes and vegetation are being restored through controls of grazing, exotic plant eradication and prescribed burning. The 1981 budget allotment was US\$ 14.5 million.

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST:

The Yosemite National Park nomination as presented by the Government of the United States provides the following justification for designation as a World Heritage property:

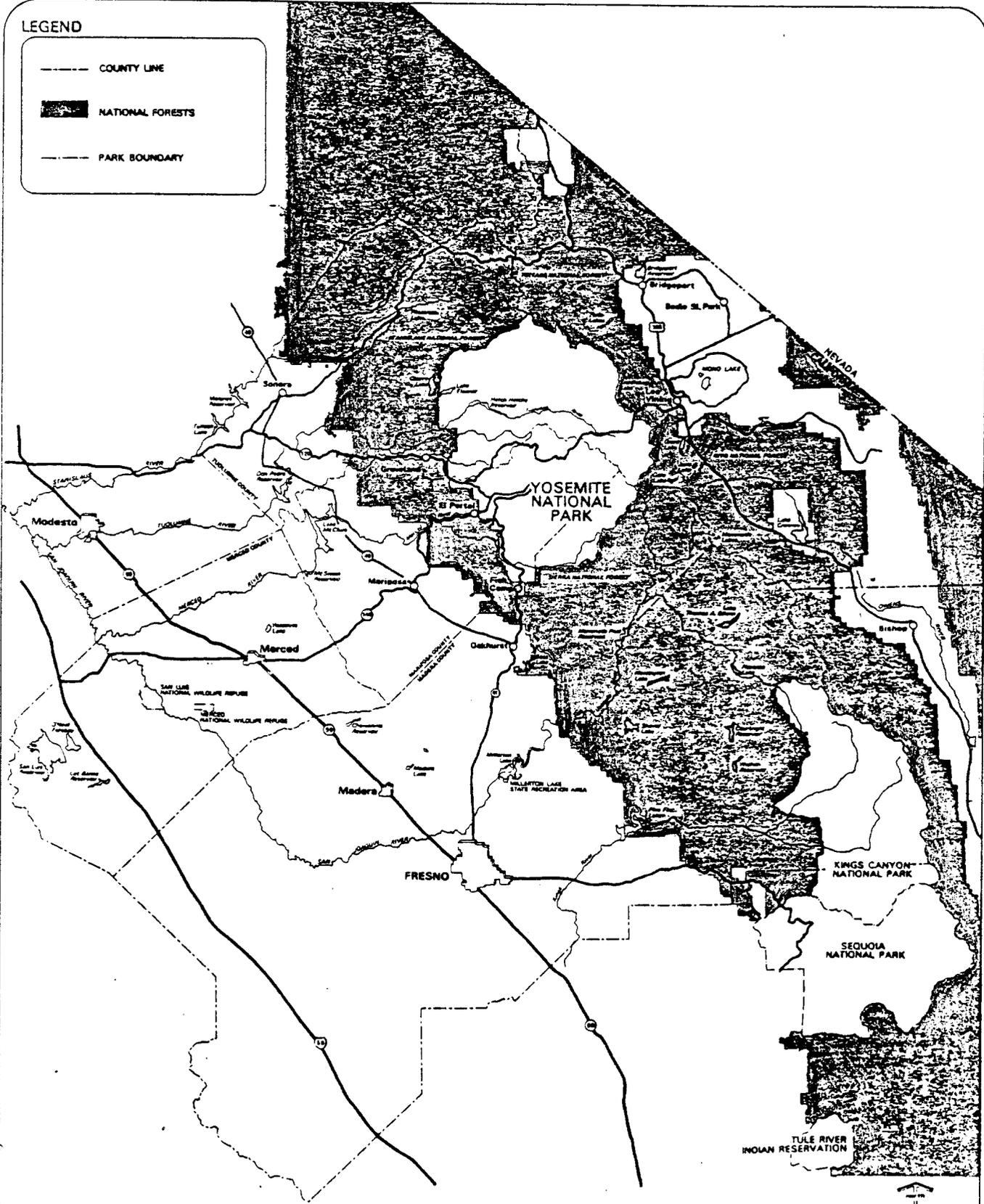
a) Cultural property -- not applicable

b) Natural property

- (i) Earth's evolutionary history. The park gives vivid reflection of the glacial period on the Pacific slope of the continent. The effects of the Ice Age on the granitic bedrock structure are striking and uniquely portrayed in the Yosemite area.
- (ii) Exceptional natural beauty. The concentration of distinctive landscape features in the Yosemite valley offers scenery that attracts millions of visitors per year. The park contains 5 of the world's highest waterfalls, outstanding examples of granitic domes, deeply incised valleys, and groves of the giant sequoias as possibly the oldest (c. 2700 years) and largest living things on earth.

LEGEND

- COUNTY LINE
- NATIONAL FORESTS
- PARK BOUNDARY



The Yosemite Region



308 YOSEMITE NATIONAL PARK (USA)

1. DOCUMENTATION

- (i) Nomination form, maps, park publications
- (ii) IUCN Data sheets
- (iii) Consultations: Dr. J.A. Kennedy
- (iv) Literature Consulted: numerous references given in nomination bibliography; US National Park Service, 1980. General Management Plan and, 1982, Natural Resources Management Plan and Environmental Assessment; Huth, H. 1957. Nature and the American Mind: Three Centuries of Changing Attitudes. Univ. Calif. Press. pp.134-135.

2. COMPARISON WITH OTHER AREAS

It is difficult to find a comparable area to Yosemite in the Nearctic Realm. Many North American parks have remnant glaciers and post-glacial landscapes but almost all of these have volcanic, sedimentary, or metamorphic substrates where glacial features are quickly lost to erosion or buried under the present ice pack. No other area portrays the effects of the ice age on the underlying granitic domes as does Yosemite.

The two areas that come closest for comparison purposes are Kings Canyon and Sequoia National Parks, two contiguous parks 110 km south of Yosemite. All 3 parks are roughly comparable in alpine glacial terrain, elevation range, habitat and species diversity. Sequoia has the most superlative giant sequoias of the three and Kings Canyon has the highest canyon wall (2550 m) in North America. Neither park, however, can rival the scenic beauty of Yosemite with its unique concentration of cliffs, waterfalls, lakes, domes, and meadows.

3. INTEGRITY

Yosemite has clear and physically explicit boundaries. The upper reaches of the park follow the crest of the Sierra Nevada drainage divide, and the park encompasses the upper watersheds of two major rivers. The west boundary cuts across the terrain on arbitrary but manageable section lines.

The entire park is surrounded by four national forests, adjacent portions of which are designated wilderness areas, thereby providing important buffer functions.

The guiding document is a general management plan which consists of three sub-plans: natural resources; cultural resources; and visitor use, operations and development. The third sub-plan identifies the major threats and outlines measures to address them. The threats include excessive vehicle traffic, overcrowding, uneven distribution of use, inappropriate development and commercial services. Resolution of these issues is based on the Park Service receiving adequate funding and then modifying certain policies and laws. An estimated US\$85 million budgetary support is needed to implement the plan.

There are also two threats to Yosemite from proposed dam developments in the Tuolumne Valley within the park (water supply for San Francisco) and for the Merced River outside the park that would affect park fisheries. World Heritage status would help to deflect or at least offer more mitigative measures for these proposals.

4. ADDITIONAL COMMENTS

It is difficult to discuss the values of Yosemite without reference to John Muir, the early naturalist who is considered the "father" of Yosemite and who wrote eloquently about the park. His various books on Yosemite represent classic statements in the development of the national parks concept and are still often quoted today.

Although it is generally accepted that Yellowstone was the first national park ever established, Yosemite was the first concrete implementation of the national park concept when, 8 years prior to Yellowstone's establishment, Yosemite Valley and the Mariposa Grove were collectively the first area ever set aside by a government "for public use, resort, and recreation" in perpetuity. Yosemite's natural beauty was the impetus, then, for the first implementation of the national park concept as we know it today.

Adding to Yosemite's cultural importance are the archeological features found in the area. The 569 sites designated to date including stratified 2000 year-old middens, provide a significant resource for the study of paleo-cultural ecology and environmental change in western North America.

5. EVALUATION

Yosemite National Park qualifies for World Heritage designation on criteria (i) and (ii). The Park provides a vivid reflection of the glacial period on the Pacific slope of the continent where the effects of the Ice Age on the granitic bedrock structure are unique in the world. Yosemite also qualifies under "exceptional natural beauty" with its combination of domes, granite walls, waterfalls, hanging valleys, giant sequoias, meadows, lakes, diversity of life zones and variety of species (criteria iii).

As suggested under point 4 above, the Park also may qualify as a cultural site under criteria 6 and should be evaluated by ICOMOS in this light.

6. RECOMMENDATIONS

Yosemite National Park should be inscribed on the World Heritage List. The National Park Service authorities should be encouraged by the Committee in their efforts to implement a series of conservation measures which would enhance the integrity of the site.

UNITED STATES OF AMERICA-Yosemite National Park

UNITED STATES OF AMERICA - California

NAME Yosemite National Park

MANAGEMENT CATEGORY II (National Park)
X (World Heritage Site)

BIOGEOGRAPHICAL PROVINCE 1.20.12 (Sierra-Cascade)

GEOGRAPHICAL LOCATION Central portion of the Sierra Nevada in central California. 37°30'-38°11'N, 119°12'-119°53'W

DATE AND HISTORY OF ESTABLISHMENT Act of Congress of 30 June 1864 (13 Stat. 325) granted Yosemite Valley and Mariposa Big Tree Grove to the state of California (regranted to the US government in 1906). Establishment of Yosemite National Park as a forest reservation on 1 October 1890 (26 Stat. 650) excluding Yosemite Valley and Mariposa Grove. Boundary adjustments were made in 1905. Park extension in 1929 of 4,846.47ha and further extensions in 1930, 1931, 1932, 1937, 1938 and 1984. Designated as a World Heritage site in 1984.

AREA 308,283ha. The park is surrounded by four national forests.

LAND TENURE Federal government ownership

ALTITUDE 671m-3,998m

PHYSICAL FEATURES Yosemite is dominated by the Sierra Nevada which is a tilted granite area. Granite underlies most of the park and is exposed as domes, partial domes, knobs and cliffs. There is exceptionally glaciated topography over most of the area including the spectacular Yosemite Valley, a 914m deep cleft carved by glaciers through a gently rolling upland. The valley is a widened portion of the prevailing narrow Merced River canyon which traverses the southern sector of the park from east to west. The massive sheer granite walls present a freshly glaciated appearance with little postglacial erosion. This area also contains many waterfalls and some 300 lakes. Other notable canyons in the park are the Grand Canyon of the Tuolumne River and the Tenaya Canyon.

CLIMATE There is considerable climatic variation with mean temperatures varying some 20°C between the valleys and mountains. Annual precipitation is 1270mm-2652mm with most of the rain and snow falling at middle elevations from 1,220m-2,743m. The crests and peaks are relatively dry and the foothills and lower slopes are semi-arid.

VEGETATION There are 27 major vegetation communities, ranging from low elevation chaparral to alpine fellfields above 3,900m, the most extensive being white fir (15.18% of the park), lodgepole pine (20.45%) and red fir (12.38%). The park includes 16 major forest types with 37 tree species. Within these there are three highly significant stands of giant sequoia

Infobase produced by WCMC, January 1992

Sequoiadendron giganteum totalling 169ha, four meadow types and black oak Quercus kelloggii woodlands. The Mariposa, Merced and Tuolumne groves of sequoias are among the first discovered by European explorers and contain many important specimen trees, most notably the Grizzly Giant. The lower elevations are covered with chaparral woodland with digger pine Pinus sabaliana and live oak Quercus chrysolepis in the overstorey and extensive brush fields of Ceanothus spp., Arctostaphylos spp. and chamise Adenostoma fasciculatum or mixed coniferous forest with ponderosa pine Pinus ponderosa, incense-cedar Calocedrus decurrens, Douglas fir Pseudotsuga menziesii, white fir Abies concolor and California black oak Quercus kelloggii.

The next elevation zone comprises meadows of three distinct types: 'low elevation' below 1,829m, 'alpine and subalpine' which includes glacial (above 1,829m) and 'boggy' (above 1,829m) which are characterised by a very elevated water table in late summer or early fall. This zone also contains areas of red fir Abies magnifica with some western juniper Juniperus occidentalis, Jeffrey pine Pinus jeffreyi, western white pine P. monticola and one of the finest virgin sugar pine stands P. lambertiana in the world. Meadows are significant due to their species diversity. While meadows constitute less than 10% of the total vegetation in the Sierra Nevada and less than 4% of the park, they contain nearly 40% of the park's flora. This diversity in turn attracts an equally diverse fauna. The threatened great grey owl is directly dependent upon several meadow systems within the park. Likewise, the park's black oak woodland communities support both a diverse flora and fauna which are presently in decline throughout California.

The subalpine zone is dominated by lodgepole pine P. contorta which is also associated at higher elevations with mountain hemlock Tsuga mertensiana and whitebark pine Pinus albicaulis.

Above 3,048m there is alpine vegetation with alpine willow Salix petrophila, perennial herbs, grasses and sedges which are distinctive, sparse and lowgrowing.

The park contains a diverse flora of more than 1,400 species of flowering plant, ferns, bryophytes and lichens. Between the park and the El Portal administration site there is one endemic species Eriophyllud nubigenum, eight threatened or endangered (Federal Register), 19 locally rare species and 18 species rare for the Sierra Nevada range.

FAUNA Some 74 species of mammals and over 230 bird species have been recorded. The most commonly seen mammals include chipmunk Eutamias spp., yellow-bellied marmot Marmota flaviventris, ground squirrel Spermophilus spp., black bear Ursus americanus, coyote Canis latrans and mule deer Odocoileus hemionus. Resident but rarely seen are pine marten Martes americana, fisher M. pennati, wolverine Gulo luscus (rare in California), mountain lion Felis concolor and Sierra red fox Vulpes vulpes nescatoc (rare in California). Bighorn sheep Ovis canadensis were declared extinct in Yosemite in 1914 but were reintroduced in 1986. The avifauna includes the endangered southern bald eagle Haliaeetus leucocephalus (E) and peregrine falcon Falco peregrinus (V) which successfully breeds here. Great grey owl

Strix nebulosa (listed as endangered by the California Department of Fish and Game) nests in the park. Some 10 species of amphibians and 18 reptile species are endemic. The park contains 11 fish species including 6 endemic.

CULTURAL HERITAGE There are 1,000 designated archaeological sites recorded by visitors, park staff and during systematic archaeological surveys. Yosemite is viewed as a boundary zone between the two major cultural provinces of central California and Great Basin, principally Miwok and Paiute Indians.

VISITORS AND VISITOR FACILITIES Information not available

SCIENTIFIC RESEARCH AND FACILITIES A total of 63 active projects during 1988 included atmospheric research (3), biology/ecology (9), hydrology (3), geology (10), zoology and animal ecology (13), botany and plant ecology (9), sociology (7), forestry (6), physics (1), epidemiology (1) and Geographical Information Systems (1). There is a research library and a museum collection containing some 2,000 bird and mammal study skins, 2,000 insect specimens, 5,000 archaeological specimens, an herbarium with 5,000 plant specimens and over 20,000 historic photographs.

CONSERVATION MANAGEMENT Totally protected but sport fishing is permitted. The park is zoned as follows: Natural Environment Protection zone 6%, Outstanding Natural Features zone 2% and Special Use zone to accommodate 2 reservoirs 1%. The remaining area comprises Natural Environment, Historical, Archaeological and Development zones. 89% of the park was designated as wilderness by Congress in 1984. Surrounded by four national forests which provide important buffer zones.

Fire was reintroduced into the giant sequoia ecosystem and other fire-dependent communities in 1970 to ensure their perpetuation. Yosemite's General Management Plan was approved in 1980 under which facilities and vehicle traffic will be reduced in the valley. The management plan consists of three components: natural and cultural resources management; visitor use, operations and development; and interpretive prospectus. The second sub plan identifies major threats and outlines measures to address them. The Resources Management Plan identifies numerous conservation threats including concerns about air quality, alien plants and animals and impacts to vegetation from visitation, and programmes designed to mitigate these impacts.

MANAGEMENT PROBLEMS Extreme visitor pressure and development of modern accommodation facilities on a large scale have had a disturbing impact. Inappropriate development and commercial services have impacted large portions of Yosemite Valley. Two hydroelectric and water storage facilities permitted under special legislation cause significant local disturbance at Hetch Heetchy and Lake Eleanor in the north-west of the park. A major trans-Sierra road bisects the park. From 1890 to 1968 management suppressed natural fires which caused significant changes to the forests. The area was heavily grazed in the past which has resulted in changes in species composition and exotic plant introduction. Grizzly bear

Ursus arctos, California bighorn sheep Ovis canadensis californiana and possibly grey wolf Canis lupus disappeared from the area in the 1800s and early 1900s. A few non-native species, such as beaver Castor canadensis and white-tailed ptarmigan Lagopus leucurus, have been introduced. California black bear Ursus americanus has been adversely affected by human contact. Studies of Yosemite's backcountry areas have identified significant impacts due to campsites, trails and high Sierra camps.

STAFF About 300 year-round permanent, 300 seasonal and 1,800 concession employees in summer and 900 in winter.

BUDGET Annual budget US\$10,780,182 (1989)

LOCAL ADMINISTRATION Superintendent, PO Box 577, Yosemite National Park, California 95389

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DATE 1983, updated May 1990

0013U

Convention concernant la protection du Patrimoine mondial, culturel et naturel

PROPOSITION D'INSCRIPTION SUR LA LISTE DU PATRIMOINE MONDIAL

Nom : PARC NATIONAL DE YOSEMITE

N° d'ordre : 308

Date de réception par le Secrétariat : 30.12.83

Etat partie ayant présenté la proposition d'inscription du bien conformément à la Convention : ETATS-UNIS D'AMERIQUE

Résumé établi par l'UICN (mars 1984) à partir de la proposition d'inscription présentée par les Etats-Unis. Le document original et toutes les informations communiquées à l'appui de la proposition d'inscription pourront être consultés aux réunions du Bureau et du Comité.

1. LOCALISATION : Etat de Californie (Etats-Unis d'Amérique)

2. DONNEES JURIDIQUES :

Bien public administré par l'USNPS (Service des Parcs nationaux des Etats-Unis) sous l'autorité du Ministère de l'intérieur. Les dispositions législatives relatives au parc comprennent 16 lois, proclamations et résolutions. Yosemite Valley et les séquoias géants de Mariposa Grove présentent la caractéristique d'être le premier site naturel à avoir, pour ses qualités pittoresques, été constitué en zone d'agrément à l'usage du public (1864). Le statut officiel de parc national lui a été donné en 1890.

3. IDENTIFICATION :

Le Parc national de Yosemite s'étend sur la pente occidentale des monts du centre de la Sierra Nevada dans la province biogéographique "chaîne des Cascades". Il couvre une superficie totale de 3.079 km². La région a subi dans le passé une forte glaciation et, s'il n'existe plus de glaciers dans le parc, ils ont laissé partout des traces de leur passage. L'action glaciaire conjuguée à la présence d'un socle granitique a produit des reliefs uniques et très accentués. On rencontre notamment des structures en dôme polies typiques, ainsi que les caractéristiques glaciaires associées : vallées suspendues, lacs de cirque, moraines et vallées en U. Des blocs granitiques monolithiques comme Half Dome et le mur vertical de El Capitan sont des vestiges caractéristiques classiques de l'histoire géologique de la région. L'altitude varie entre 579 mètres et 3.998 mètres. Le parc est connu pour ses nombreuses cascades, notamment Yosemite Falls et Ribbon Falls, dont les eaux tombent en une chute ininterrompue d'une hauteur de 491 mètres (troisième du monde). Deux grands cours d'eau prennent leur source dans le parc, qui contient en outre 300 lacs.

Les fluctuations climatiques sont considérables, avec des températures moyennes variant d'une vingtaine de degrés entre les vallées et les montagnes. Les précipitations varient également de 1.270 à 2.653 mm. On rencontre dans le Parc de Yosemite cinq des sept zones biologiques reconnues des Etats-Unis. La variété de la flore se traduit par l'existence de six zones de végétation distinctes déterminées par la variation de l'altitude. On note la présence remarquable de trois futaies de séquoias géants et de grandes prairies alpines. Il existe 1.200 espèces de plantes à fleurs, ainsi que diverses autres espèces de fougères, de bryophytes et de lichens. On trouve une espèce végétale endémique et huit espèces menacées ou en danger d'extinction (Registre fédéral des Etats-Unis).

Le parc abrite 67 espèces de mammifères, dont 32 de rongeurs, 221 espèces d'oiseaux, 18 de reptiles, 10 amphibiens et 11 de poissons, dont 6 sont endémiques. Une espèce d'oiseau (l'aigle chauve) est en danger d'extinction et une autre (le faucon pèlerin) est classée comme "vulnérable" dans le Red Data Book de l'UICN/ICBP.

Aux époques préhistoriques tardives et historiques, la région de Yosemite était habitée par deux grandes tribus d'Indiens d'Amérique du Nord. 569 sites archéologiques ont été recensés dans le parc.

Quatre forêts nationales entourent le parc et constituent une zone tampon. Une grande voie routière le divise en deux et assure un accès facile aux visiteurs des grands centres urbains. Le parc en a accueilli 2,7 millions en 1981. L'infrastructure touristique est particulièrement développée dans Yosemite Valley, au centre du parc.

4. ETAT DE PRESERVATION OU DE CONSERVATION :

Le paysage de Yosemite a toutefois beaucoup évolué. Trois espèces d'animaux ont désormais disparu du parc (le loup gris, le grizzli et le mouflon de Californie). Quelques espèces non indigènes y ont été accidentellement introduites (castor, téttras à queue blanche). La suppression des feux naturels et du pacage du gros bétail et des ovidés dans le passé a également modifié la végétation initiale. La construction de deux barrages dans le parc et la mise en place d'installations ont également eu une influence sur les écosystèmes. Le parc renferme 727 ha de propriétés privées.

Si certaines parties du parc reçoivent, aux fins de loisirs, un nombre de visiteurs approchant aux périodes de pointe les densités urbaines, 90 % de la zone est classée zone de nature protégée ("wilderness") dont l'accès est assuré par 1.245 km de sentiers.

Yosemite fait l'objet d'un plan de gestion général achevé en 1980, tenant compte des problèmes ci-dessus évoqués. Ce plan vise à réduire considérablement l'incidence des véhicules des visiteurs en offrant d'autres modes de transport. Les paysages et la végétation qui ont été altérés sont en cours de restauration grâce au contrôle du pacage, à l'élimination des plantes exotiques et aux brûlages contrôlés. Le budget de 1981 consacrait au parc une somme de 14,5 millions de dollars des Etats-Unis.

5. JUSTIFICATION DE L'INSCRIPTION SUR LA LISTE DU PATRIMOINE MONDIAL :

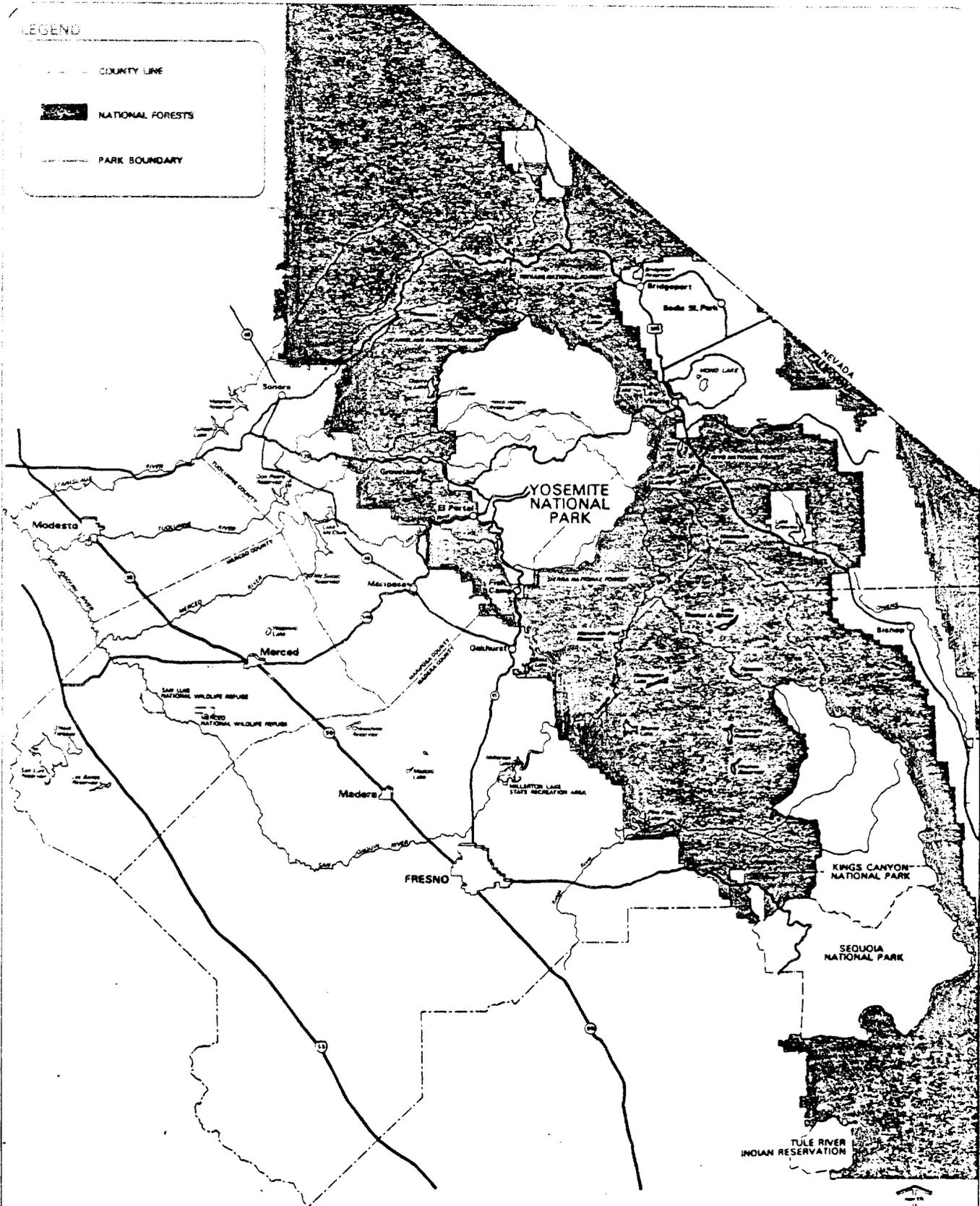
La proposition présentée par le Gouvernement des Etats-Unis d'Amérique, visant à l'inscription du Parc national de Yosemite sur la Liste du Patrimoine mondial invoque les critères suivants :

Bien naturel

- (i) histoire de l'évolution de la terre. Le parc offre des témoignages spectaculaires de la période glaciaire sur la partie du continent drainée vers le Pacifique. Les incidences de l'ère glaciaire sur la structure du socle granitique sont frappantes et la région de Yosemite en est un exemple unique.
- (iii) beauté naturelle exceptionnelle. La concentration d'éléments pittoresques typiques dans la Yosemite Valley offre un paysage qui attire chaque année des millions de visiteurs. Le parc contient cinq des plus grandes chutes d'eau du monde, des exemples exceptionnels de domes granitiques, des vallées profondément encaissées et des futaies de séquoias géants, qui sont peut-être les êtres vivants les plus anciens (environ 2.700 ans) et les plus grands sur terre.

LEGEND

- COUNTY LINE
- NATIONAL FORESTS
- PARK BOUNDARY



The Yosemite Region

EVALUATION TECHNIQUE PAR L'UICN

308 PARC NATIONAL DE YOSEMITE (ETATS-UNIS D'AMERIQUE)

1. DOCUMENTATION

- i) Formulaire de proposition d'inscription, cartes, publications sur le parc
- ii) Fiches signalétiques de l'UICN
- iii) Consultant : M. J.A. Kennedy
- iv) Documents consultés : nombreuses références indiquées dans la bibliographie accompagnant la proposition d'inscription ; US National Park Service, 1980. General Management Plan, et, 1982, Natural Resources Management Plan and Environmental Assessment ; Huth, H. 1957. Nature and the American Mind: Three Centuries of Changing Attitudes. Univ. Calif. Press. P. 134-135.

2. COMPARAISON AVEC D'AUTRES REGIONS

Il est difficile de trouver une région comparable à celle de Yosemite dans le domaine néoarctique. De nombreux parcs d'Amérique du Nord présentent des vestiges de glaciers et des paysages postglaciaires, mais presque tous ont des substrats volcaniques, sédimentaires ou métamorphiques, dont les caractéristiques glaciaires disparaissent rapidement sous l'action de l'érosion, ou sous les amas de glace actuels. Aucune zone ne représente comme Yosemite les effets de la période glaciaire sur les dômes granitiques sous-jacents.

Les deux zones les plus comparables seraient les Parcs nationaux de Kings Canyon et des Séquoias, deux parcs contigus situés à 110 km au sud de Yosemite. Les trois parcs sont relativement comparables en ce qui concerne le relief glaciaire alpin, l'altitude, la diversité des habitats et des espèces. Le Parc national des Séquoias contient les plus remarquables séquoias géants des trois et le Parc de Kings Canyon, le cañon le plus encaissé (paroi de 2.550 mètres) d'Amérique du Nord. Aucun des deux ne peut toutefois surpasser la beauté du paysage de Yosemite, avec sa concentration unique de falaises, cascades, lacs, dômes et prairies.

3. INTEGRITE

Le Parc national de Yosemite a des limites naturelles très nettes. Ses parties hautes suivent la crête de la ligne de partage des eaux de la Sierra Nevada et il englobe les bassins versants supérieurs de deux grands cours d'eau. A l'ouest, ses limites sont arbitraires mais facilement localisables.

Le parc entier est entouré de quatre forêts nationales, dont certaines portions adjacentes désignées comme des zones de nature protégée jouent le rôle important de zones tampons.

Le document directif est un plan de gestion général subdivisé en trois sections : ressources naturelles ; ressources culturelles ; tourisme, services et mise en valeur. La troisième section recense les principales menaces et indique les mesures destinées à y faire face. Parmi ces menaces on citera la circulation automobile excessive, le trop grand nombre de visiteurs, la répartition inégale des utilisations, une mise en valeur intempestive et les services commerciaux. Ces problèmes seront résolus si l'Administration du parc bénéficie de fonds suffisants et modifie ensuite certaines politiques et dispositions législatives. Il est nécessaire d'obtenir l'aide financière, estimée à 85 millions de dollars des Etats-Unis, pour mettre en oeuvre le plan.

Deux autres perspectives menacent également le Parc national de Yosemite : les projets de barrages proposés dans Tuolumne Valley à l'intérieur du parc (pour l'alimentation en eau de San Francisco) et sur Merced River hors du parc, qui auraient une incidence sur la pêche dans le parc. L'inscription sur la Liste du Patrimoine mondial permettrait de repousser ces mesures, ou du moins d'en proposer de moins radicales.

4. OBSERVATIONS SUPPLEMENTAIRES

Il est difficile d'évaluer l'intérêt du Parc national de Yosemite sans faire référence à John Muir, ce naturaliste de la première heure qui est considéré comme le "père" de Yosemite et qui a écrit des passages très éloquents sur le parc. Les divers ouvrages qu'il lui a consacrés font autorité dans l'élaboration du concept de parc national et sont encore souvent cités aujourd'hui.

S'il est généralement admis que Yellowstone est le premier parc national qui ait jamais été créé, Yosemite a été la première concrétisation du concept de parc national lorsque, huit ans avant la création de Yellowstone, Yosemite Valley et Mariposa Grove ont formé ensemble la première zone à avoir été instituée par un gouvernement "comme lieu de séjour et de loisirs à l'usage du public" à perpétuité. La beauté naturelle de Yosemite a donc été le point de départ de la première mise en pratique du concept de parc national tel que nous le connaissons aujourd'hui.

L'importance culturelle de Yosemite est renforcée par la découverte de vestiges archéologiques dans la zone. Les 569 sites désignés à ce jour, notamment les débris domestiques stratifiés datant de 2.000 ans, constituent un atout considérable pour l'étude de l'écologie paléoculturelle et l'évolution de l'environnement dans l'ouest de l'Amérique du Nord.

5. EVALUATION

L'inscription du Parc national de Yosemite sur la Liste du Patrimoine mondial est justifiée par les critères (i) et (ii). Le parc offre des témoignages frappants de la période glaciaire sur le versant Pacifique du continent où les effets de l'époque glaciaire sur le soubassement granitique sont uniques au monde. Yosemite mérite aussi de figurer sur la Liste en raison de la "beauté naturelle exceptionnelle" de son ensemble de dômes, murs de granit, cascades, vallées suspendues, séquoias géants, prairies, lacs et de la diversité des zones biologiques et de la variété des espèces.

Comme l'indique le paragraphe 4 ci-dessus, le parc peut aussi être considéré comme site culturel en vertu du critère (vi) et doit être évalué par l'ICOMOS dans cette optique.

6. RECOMMANDATIONS

Le Parc national de Yosemite doit être inscrit sur la Liste du Patrimoine mondial. L'Administration du parc national doit être encouragée par le Comité dans ses efforts visant, par l'application d'une série de mesures de conservation, à améliorer l'intégrité du site.